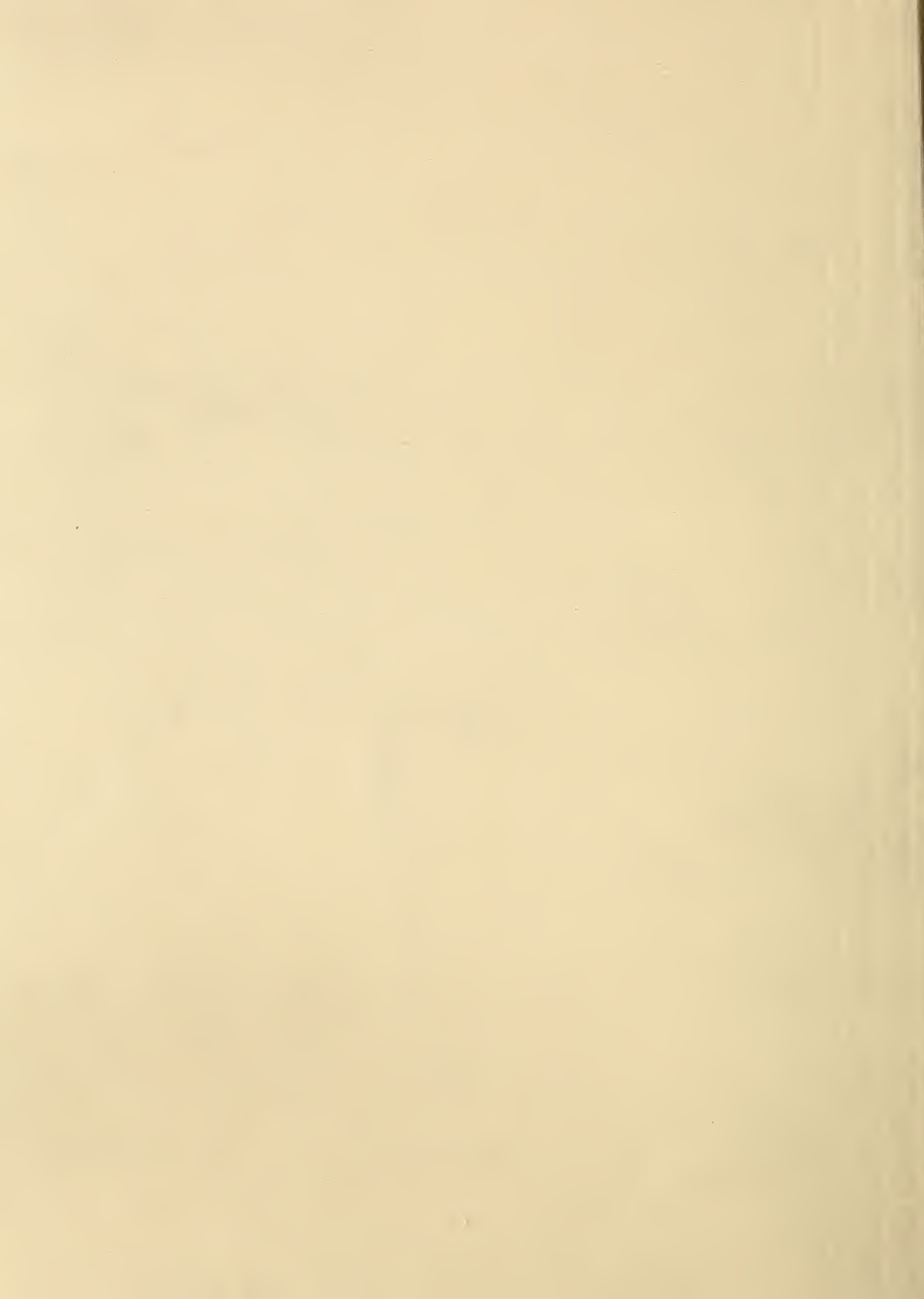


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A JOURNAL DEVOTED  
 TO BEES  
 AND HONEY  
 AND HOME  
 INTERESTS

ILLUSTRATED  
 SEMI-MONTHLY

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No. 15.



YOU ASK ME, Mr. Editor, to make certain experiments because you're too busy. Can't do it. Not because I'm too busy, but because the bees are not busy enough.

JULY 17 I found two clipped queens quietly holding joint possession in one colony. Either they had lived there together since last year, or one of them must have swarmed out of a neighboring colony and peaceably accepted. The first supposition is perhaps the more easily believed.

C. DAVENPORT's plan of waxing rubber bands on fruit-cans to prevent leaking, as mentioned in last number's Straws, has been tried at our house, and it doesn't work "in this locality." Wax cools and flakes off before it can be got in place. Some kink, perhaps, we haven't got hold of.

REPLYING TO C. Davenport, p. 536, I don't know that I ever said it was necessary to have a section full of foundation to have the bees accept the bottom starter, for bees will accept—have accepted—a bottom starter when there was no top starter; but a bottom starter, I think, is very much more secure against toppling over if the two starters are so near together that the bees promptly join them.

STENOG says, p. 531, that Noah Webster shortened our spelling very materially in many ways, and then says, "I feel sure our common spelling will not be modified during the next century." Now, Stenog, how do you know the death of Noah Webster ended all hope of further mending? Or, do you mean that in this century our spelling will be so improved that it will not need to be modified in the next century?

IF FRIEND GILSTRAP wants his veil three inches longer, let him sew it to the outer edge of the rim of his hat instead of having it puckered around the crown. [Yes, that will fix it, sure enough; but while you are about it, if the hat is broad-brimmed, sew the veil inside of the outer edge an inch or so. This greatly

improves the seeing qualities of the material, says W. L. Coggshall, for then the projecting brim shades it, preventing that disagreeable gloss or glistening that is sometimes so trying to the eyes—ED.]

"TO PREVENT SWARMING, queen-cells should be destroyed in 9 days," says Question-box, p. 543. In 9 days from what? [The answer is a little incomplete, it is true. I meant, however, nine days either from the first swarm, or when cells are about nine days old. Assuming that some queens might hatch in twelve days, this would leave a leeway so that all cells could be cut out before any young queens could emerge.—ED.]

C. DAVENPORT, you've got me mixed up with some one else, p. 536, or else you've just reversed my practice. Instead of putting on supers as soon as colonies are strong enough, without regard to the flow, I put them on just when I think the flow is coming, without very much regard to the strength of colonies. But I don't believe bees spoil sections put on too early as much as they do those left on too late. Propolis is more plentiful in the latter case.

MR. EDITOR, referring to the picture of Draper's barn and the eight-frame hive, you say, "It will be apparent from the illustration that the difference is not nearly so great as one would imagine." I arise to remark that the real difference in capacity is greater than one who judges from the illustration would imagine. Allowing that the comb comes within  $\frac{1}{4}$  inch of the bottom-bar, if I figure rightly, the comb surface in a "barn" is equal to  $12\frac{3}{4}$  of the ordinary frames. Two barns hold more than three eight-frame hives.

"THE FACT of insect origin" of honey-dew "can not be doubted now. It's settled," say you, Mr. Editor, p. 542. Certainly, it's settled that honey-dew comes by means of insects; but isn't it also settled that honey-dew may likewise come without any insects? [Strictly speaking, there is no honey-dew except of insect origin; and, strictly speaking, we might say also there is no such thing as real honey-dew; that is, there is no kind of saccharine matter that falls in the form of a spray from the heavens, as was formerly supposed. But there is a sort of saccharine exu-



dition from the leaves of certain plants that probably has no connection with any insects. But is this honey-dew?—ED.]

AT ONE TIME I thought the bees were in for a crop of honey. But it has come in so slowly that some have made a little start in supers, and some haven't. At such times it seems to me it must be more satisfactory to work for extracted honey. [But you do not tell us, doctor, definitely, whether the season in and about Marengo is likely to be a failure or not. I take it that it will, as your only source is clover, and that is probably over by this time. From present indications the season over the country generally will be even poorer than that of last year, and we thought 1898 was about as poor as it could be. Comb honey—at least a choice article—ought to be sold at a higher price than it has sold for for several years past.—ED.]

MR. EDITOR, your demands are ridiculous, p. 545. You want a young lady to cut a limb from a tree, said limb having a swarm of bees on it, and said young lady then and there to have an unconscious air of ease and grace. Unconscious air after cutting down a swarm? Not much. If she's the girl I take her to be, a girl worth looking at in a frontispiece, there will be, after she gets possession of that swarm, a conscious air of flushed victory, as who should say, "I'd like to see a man do that job any better!" [All right. She can have a "conscious air of flushed victory," but she must not have "a conscious air" that some one is looking at her and admiring her. Such a state of consciousness, to my notion, is awful to behold in any one.—ED.]

A. J. WRIGHT, in that article, p. 531, shows that he is a keen observer, and his observations are well worth consideration; but when he makes the startling statement that "many animals can see perfectly *only* in total darkness," and that there are "rays of dark" as something distinguished from rays of light, we certainly have a right to ask whether any other scientist believes or teaches any thing of the kind. Friend Wright, please tell us whether any other authority teaches that an animal may see in any way except by rays of *light* impinging on the retina. [I do not know enough about the question of light and darkness, or "rays of dark," to say whether Mr. W. is right or wrong; but I do know that he has demonstrated that some so-called scientists are clearly wrong in some of their "science," but nevertheless he may be wrong on the subject of "dark rays."—ED.]

AS FOOTNOTE to that item about the bee-escape, p. 545, let me make some remarks. As you give it, you must have taken it in a shower. It's never wet except by rain—possibly being wet wouldn't be a bad thing. It never fits tightly, but hangs loosely, although bee-tight, a very important feature being that it can be *thrown* on and thrown off, for it's put on the first super of the pile, and taken off and put on again every time another super is added. There's no cone in the case, but a three-sided pyramid, because easier made. I

don't first shake bees out of super—can't. I smoke 'em out. (Have spoiled honey by smoking too much.) The thing is simply a robber-cloth with a piece of lath nailed on two opposite sides (oftener two pieces on each side), and the other two sides weighted down with shot in the hem, a triangular hole cut out of the center, and the pyramid sewed on. It can be picked up with one hand and thrown on; and while the pile is low I always kick it off to put on the next super. That's about all there is of it, but it's a very convenient thing for one who hasn't a bicycle and doesn't want to make an extra trip to put on Porter escapes. [If you are not the one who wets the cloth that hangs over the top of the hive, then it is somebody else, and that some person told me of this trick, I am positive. The point is here: Robbers, if there should be any such, hesitate about prying under a wet cloth; but if it be dry, on the other hand, they will squeeze under providing they have physical force sufficient to accomplish the act. Very likely, however, your four edges weighted down would, in practice, accomplish the result, if the skirts, as we might call them, have not been previously soaked in water. The kodak picture that I took of the device was not very clear, and I asked our engraver to make a pen-drawing showing a view which I knew would come up distinctly where a half-tone would be a perfect blur. That accounts for the cone showing instead of the pyramid.—ED.]



The blazing sun, with fervent glare,  
Pours down its torrid heat;  
The flowers with the ground is bare—  
What have the bees to eat?



#### AMERICAN BEE JOURNAL.

The first page of the issue for July 20 shows a view of the apiary of Miss Ada L. Pickard, with the owner in the foreground. It is located in Richland Co., Wis. She managed an out-apiary of 100 colonies last year, and secured 16,000 lbs of basswood honey. This is an unusual record, and Miss P. certainly has a right to assume a "conscious air of flushed victory," as Dr. Miller gallantly puts it.



In speaking of king-birds, Prof. Cook says there are two kinds that are doubtless bee-eaters, and that they would doubtless eat queens as well as workers. They belong to the *Tyrannidae*, among which is included our well-known beautiful little pewee, or phoebe bird. In their own apiary he has seen the king-bird dart down to the hives, but the stomachs of the birds were found to contain nothing but robber-flies, which are among the worst enemies they have. On the whole, Prof. Cook considers these birds more the

friend of the bee-keeper than his enemy. This is good news to me, for I confess I have no pleasure in hearing of their destruction. Perhaps owls, hawks, and snakes will seem less hateful to us when we know more about their habits.

❖

In speaking of the difference between dead brood and foul brood, Prof. Cook says: "This dead brood is not at all like foul brood, and any one who attends to the following description carefully will have no difficulty in distinguishing the one from the other: In this case the characteristic, most disagreeable *odor* of foul brood is wholly wanting; the sunken cell-cap, with its frequent perforation, is also absent. The dead brood is always in the form of larvæ, and never in the sticky, pasty, unctuous mass so characteristic of foul brood. We insert a pin and draw a decaying larva from the cell, and it is not a stringy or ropy substance that springs back when it lets go the pinhead, as is true of foul brood, on the whole, yet it often appears coffee-colored or a rich, dark brown, as does foul brood. The surest way to tell is in the character of the decaying substance in the cell. If the larva is always found, showing the form even in its decay, instead of the stringy, elastic, pasty mass, then it is not foul brood."

❖

In speaking of the word "maroon," as applied to bees, Dr. Miller asks of Mr. Doolittle: "If you knew them to be maroon, while all the authorities, the books, and the bee-journals, were calling them yellow these years and years, will you be kind enough to tell us why you never mentioned it before?" As words expressing shades, such as *ecru*, *maroon*, *subdued gooseberry*, etc., are indefinite, why not compare one thing with some object with which all are familiar? For instance, lemons and oranges are so fixed in color as to be good standards. This morning I saw some bees on my pumpkin-blossoms, and their segments were so near the beautiful orange of the blossoms, in color, that the difference was hardly perceptible. It occurred to me then that here is a good thing to measure color by. Orange is a primary (rainbow) color, and is certainly nearer the color of Italians than lemon yellow. "Maroon," in bicycle talk, seems to call for a muddy purple. The bees in question on my vines belonged to the foreman of the job-printing department here. He keeps them on the roof of his house, about ten rods from mine. I never saw a happier picture than those bees in the bottom of those beautiful yellow cups, rolling in what was to them golden wealth.

❖

#### BEE-KEEPERS' REVIEW.

The July issue starts out with a beautiful picture of a basswood limb, followed by an editorial article on this great honey-tree, now so rapidly passing away.

❖

Dr. A. B. Mason's department is worth all the *Review* costs. His remarks relative to omitting addresses of correspondents meet

my approval. In a somewhat facetious manner he settles the question thus: "The first time I saw that one of Bro. Doolittle's articles came from Onondaga Co., I wondered if he had changed his place of residence, and left his 'old stamping ground' at Borodino; and when I saw that our dear Prof. Cook had changed from Claremont, Cal., to Los Angeles Co., I unearthed a postal guide, and, to my extreme satisfaction, found that, like Bro. Doolittle, he was holding forth from the same 'home-nest' as before, and I sincerely hope that no more of our bee-journals will cease to give their readers the postoffice addresses of contributors."

❖

C. Davenport tells how he sells honey at home. He touches on one point that I have often thought has been neglected—the local paper as an advertising medium for honey. Mr. D. relates how he sold 4000 lbs. of honey. He advertised 18 lbs. for \$1.00, describing extracted honey as being free from wax and wood. He then authorized his banker to offer \$100 for evidence showing that his honey was not pure. The result was, he sold all he had and 500 lbs. more that he bought.

❖

Aaron Snyder writes about the drawbacks of Cuba as a honey country. He claims that Cuba is the best honey region in the world, but among the disagreeable features of that island he mentions the language, insects, fleas, jiggers, scorpions, snakes, etc., all of which Mr. Poppleton has described in these columns. Quite likely these pests will not deter the average American from going to Cuba provided the honey is there, for they will rapidly disappear before American genius.

❖

F. L. Thompson's "Notes from Foreign Bee Journals" is an important and valuable feature of the *Review*. I fear but few realize the amount of work necessary to produce so good a result. It shows at a glance the latest conclusions in that hotbed of mental activity, Central Europe. Why honey keeps better by being boiled is thus explained in a German bee journal: "Although the formic acid evaporates, the albuminous ingredients, which are what cause fermentation, are also separated in the foam."



According to Straw upon page 421, Dr. Miller has remarkable hens. He really conveys the idea that his hens hatch chickens from onions. No lice on those birds.

Dr. Miller's intellectual machinery must be out of gear if he can not see the difference between Indian and squaw. Indian conveys the same idea to me as German, Celt, etc., while *squaw* is a degrading personal epithet. Do you see, doctor?



In the *American Bee Journal* Mr. Dadant thinks bears are deterred from robbing beehives by the fear of stings. Bears are not built with that sort of fear in this western country. Bears make sad havoc with an apiary in this State, and never let up until they have filled themselves with honey. Possibly Mr. Dadant was thinking of French bears. Of course, they are not so aggressive as American bears.

Mr. Brodbeck and I have been sort o' neighborly and sociable this season. He moved his bees into an adjoining canyon, within easy visiting distance, with some hopes of securing a little honey. But his hopes are blasted along with the rest of us, and I think they are a little blasted, for he is not only minus a honey-yield but minus one of those bull-terrors. The poor dog fell into a reservoir and was drowned. It is supposed that the dog, being old and feeble, and his tail becoming so animated at the sight of water, it wagged the body into the reservoir.

It is of no use for Prof. Cook and me to be hopeful about getting a honey crop in Southern California. We hear of but two carloads being shipped, and those from a few favored localities. Even where circumstances were favorable, the fogs were so numerous and cool that the bees could not work to advantage. Our only hope now near the coast is a yield from sumac, which is coming on very full of bloom; but we have discovered that, to have a honey-plant fulfill its mission, it must have the moisture below as well as right conditions above. We hope, however, something from sumac.

News comes from that man Wilder in Northern California that he has shot two bears and a buck, and the end is not yet. His prospects for a honey crop are not flattering; plenty of flowers but weather too cool. Barring the bears, the same news comes from Mr. Littooy, of Tacoma, Wash. It rained all the while when I was there in November. It has dropped off now to raining every other day; but that is a little too much for the successful honey gathering. Central California complains of a shortage of the honey yield, and, taking it all together, there will not be honey enough produced on the Pacific coast, from Mexico to British Columbia, to supply the home markets.

I clip the following from a paper published in my native State, New York:

The Tripp bill, defining the sizes of small-fruit packages, has become a law. It provides that all manufacturers of small-fruit packages, such as quarts, pints, and half-pints, that make or cause to be made such packages that are of less size or capacity than the standard sizes, as defined in section one of this act, shall mark such quart, pint, and half-pint with the word "short" on the outside in letters not less than half an inch in height.

Then follows the penalty. How about sections of honey that are short? I know of some parties who use that style of section, and advocate the sale by section; but even in this way of selling, the purchaser thinks he is getting a pound. Taking all things into consideration, is it not better to stick to the full-pound section rather than be compelled to buy by law?



#### NIVER ON THE WITNESS-STAND.

Grading and Marketing: Valuable Pointers from a Practical Man.

[In our issue for June 15 I referred to the visit of S. A. Niver, and to the fact that one of our stenographers, "W. P." had taken down in shorthand an extended conversation that occurred between Mr. Niver and myself. Knowing that our friend was full of good practical "bee-talk" I took occasion to draw him out on various subjects on which he was familiar, especially on the matter of grading and marketing. While we were in "Ernest" conversation "Bob" snapped the camera at us just as we sat before my desk. Without further introduction I'll give the dialog (the first installment of it), just as it took place between us, beginning at the very start, when he came into the office.—ED.]

*E. R. Root.*—Well, well, well! where did you drop down from, S. A. Niver?

*Mr. Niver.*—Why, I just took a run over from Mantua Station, Portage Co., Ohio, on my wheel.

*R.*—Ran over? Why, how far is it?

*N.*—About fifty miles.

*R.*—Fifty miles? Why, how old are you?

*N.*—It seems to me that is a leading question. I have not reckoned up lately, but I was born in 1847.

*R.*—Well, sit down. You must be tired.

*N.*—Your Ohio roads have a good deal of road to the mile.

*R.*—But we have not the hills you have, anyhow.

*N.*—I would rather have hills than sand and clay and hills too. Well, how are things going on here?

*R.*—Oh! we are all as busy as can be. Have bees wintered fairly well?

*N.*—There is an average loss of 40 per cent throughout our country.

*R.*—Forty per cent! My, oh my! How did Cogshall come out?

*N.*—He told me that he had 3000 pounds of honey that he had extracted from combs of defunct colonies.

*R.*—Extracting from dead bees! Who ever heard of the like?

*N.*—Buckwheaters. By the way, that word accounts for a great many of our peculiar notions. We buckwheaters can not manage bees as you people do who have no buckwheat. It brings many new elements into it, and we must take them all into consideration.

*R.*—You mean, I suppose, that he extracted from dead colonies.

*N.*—Yes. Our bees, you must remember, go into winter quarters heavy with buckwheat honey, loaded clear to the brim—or at least nearly always. If a colony dies from any cause whatever, there is a large supply of buckwheat honey left in the brood-chamber. That honey is really some of the best, because it is so ripe and so good.

*R.*—But I should have thought he would have wanted to keep these combs for raising bees in the spring, instead of extracting.

N.—After we strike the soft-maple bloom there is nearly always something coming, clear through to the first of September. If the weather is favorable, bees breed very rapidly because honey comes in constantly.

R.—Oh! you are buckwheaters, then, I see. You don't need to have a lot of honey in the combs from springtime till fall. Is that the idea?

N.—If we can get a colony through till soft-maple blossom in the spring, it is all we care for. After that they can take care of themselves. Well, what did you hear about the grading-rules?

R.—Your general scheme of grading is pro-

N.—But is it not possible in some way to get it into your head that this grading has nothing to do with *quality* or *color*?

R.—That was clear enough to me, but perhaps not to others.

N.—Those three pictures I sent were all alike of buckwheat honey, all of one color.

R.—What do you think of having an *extra* fancy, say four grades in all?

N.—What is the good of that?

R.—Why, there is some honey that is sealed clear out to the wood, clear around, or nearly so; and now why not have just one notch higher?

N.—In one hundred cases, how many cases



"Is it not possible in some way to get it into your head that this grading has nothing to do with *quality* or *color*?"—S. A. Niver.

nounced all right, with one exception; that is, that perhaps you did not allow enough difference between No. 1 and fancy.

N.—I wrote you, when I sent you the photos, that they did not show the same difference that the sections themselves did.

R.—Yes, that was apparent from the photos. N.—If any one will take the pictures and hold them off at arm's length, he will see that there is difference enough. The fancy is enough heavier to make the difference.

R.—Then the real distinction between the two was weight, was it not?

N.—Yes.

R.—Fancy was, perhaps, a little darker in cappings, and that was why so many seemed to think No. 1 equal to your fancy.

of sections would you expect to find of that kind?

R.—Perhaps one or two.

N.—Well, doesn't that answer your question—that it does not pay to fuss with such a little amount?

R.—I don't know. If I were to get two cents more for those two cases, this would—

N.—Confuse people with another grade—that's all.

R.—Well, perhaps you are right.

N.—Now then. Three grades—fancy, No. 1, and No. 2; three qualities or colors of each kind—white, mixed, and buckwheat, makes nine grades. I think that is all we can ask people to keep track of—our merchants, commission men, or producers.



R.—Perhaps you are right; but somehow I have a sort of lurking feeling that I should like to have a place for those fancy fellows that are filled clear out to the wood all around.

N.—All right. That one case that you can get out of your whole crop, take it home and eat it yourself—don't try to sell it.

R.—Why not?

N.—You need it in your business at home.

R.—How so?

N.—Why, if you select a *little* lot that way it makes one more element to confuse the grading-rule and result in a dollar profit per 100 colonies. Simplicity is what we want more than any thing else. Our rules have been so complex that nobody has been able to follow them. I see that J. E. Crane, on page 126, Feb. 15, has three sections. There is one fancy. You can not call it *extra* fancy, but just *plain* fancy.

R.—Now, I would call it *extra* fancy—that is, if you have that grade.

N.—Well, perhaps it would go for the poorest of the extra fancy; but in the middle one, is where the money lies.

by the way you put your proposition. Now, then, if you were producing honey for your uncles and aunts, which honey would you produce for them?

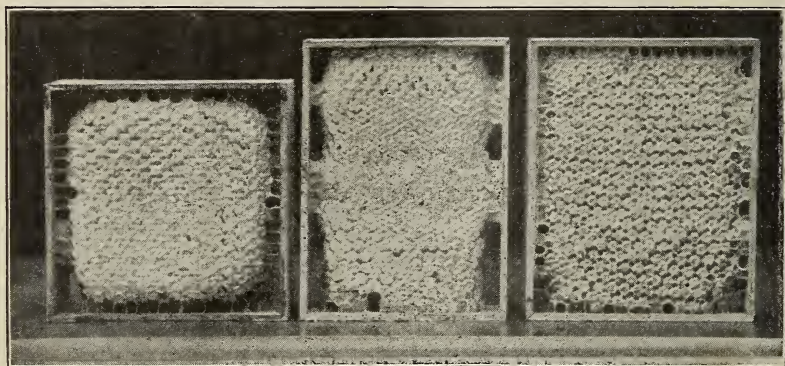
N.—If I were producing honey for my uncles and aunts, for the table, I should prefer some like that square section in the picture, and you will have a clean nice piece on the plate, while the fancy will be smeared on all sides on account of cutting full cells next to the wood.

R.—Why, Niver, you would not go back to the  $\frac{4}{4}$  sections, would you?

N.—Oh, no! I called your attention to this picture as an illustration. No. I want the long box for many reasons.

R.—You mean that you would prefer the long box filled like the  $\frac{4}{4}$  in this picture, with the cells unsealed next to the wood. Is that your idea?

N.—Yes, for my eating I would; and I believe I can get three boxes filled like the middle one, where I can get one like that shown at the right, averaging it through the apiary. Three boxes like the middle one in the pic-



"The retailer finds it much easier to sell the middle box at 10 than the right-hand one at 15."—S. A. Niver.\*

R.—Why so?

N.—If I were producing honey strictly for my own pocket-book, to fatten my purse, so to speak, I would try to produce honey, every card of which is like that, and never *one* like the extra fancy.

R.—Explain yourself a little further. I do not quite get it through my head.

N.—Simple enough. To get that extra fancy you must crowd the bees for room until they store every corner full. They will not produce more than half as many boxes, and finish them like that extra fancy, as they will of the other, and I can get more money for the poorer style and the greater number of boxes.

R.—Do you mean more per colony?

N.—Yes, per colony.

R.—You said, a moment ago, if you were running your bees to fatten your pocketbook you would try to produce sections like the one shown in the middle; then you imply that the consumer has some rights in the matter,

ture will sell for 30 cents while that one at the right will sell for 15. Figure up your money. It will cost a little more to make the three boxes; but we have quite a margin, you see, to come and go on.

R.—Do you really mean to say that you can produce three like the middle one where you can produce one like the right-hand box?

N.—Well, let us see about that now. Perhaps that is a little too strong a statement; but with comb in sections not exceeding  $1\frac{1}{4}$  inches in thickness, we can very nearly do it through the whole apiary; perhaps not quite, but close to it. You can get boxes like this by tiering up rapidly during the fore part of the honey-flow; and under favorable conditions they will cap and finish sections like this sooner than you can make them finish the fancy. And right here let me call your attention to the buckwheaters' advantage over you "single taxers" (meaning *all white-honey*

\*Cut re-inserted for the convenience of our readers.



producers). The first flow that shows up in our sections will be that lovely red raspberry — rarely enough of it to more than color the center; then white and alsike clover and basswood. We are not put out by having a large lot of half-finished sections at this stage of the game, for we confidently expect all such to be finished with a rich border of buckwheat honey, making our "Fancy Mixed" brand, which commands as high a price as the "Fancy White." We can spread out as much as we like in the early part of the season, reserving our caution for August 20.

R.—But, see here, Niver. The honey that I saw at Morton's would grade higher than the middle box you are talking about.

N.—But, brother Root, you must remember that Morton did not work for Morton's pocket-book entirely, but he worked to obtain the highest results possible, as an *artist*; and you know how freely he gave the results of his experiments to the fraternity. The pocket-book was with him a secondary matter; and his motto was, "The best is none too good."

R.—Then he did not run to fatten his pocket-book, but to benefit his customers.

N.—It was a pride with him to get the very best possible results, and the box at the right was what he aimed for all the while. Another thing, the retailer finds it much easier to sell the middle box at 10 than the right-hand one at 15.

*Concluded in next issue.*

## DRONE-CELLS VS. DOOLITTLE CUPS.

The Barber Method of Producing Comb Honey.

BY W. C. GATHRIGHT.

I was intending to keep still; but when you say, on page 458, in regard to raising cells in a hive containing a laying queen, that "without artificial cups nothing could be done," I can not keep quiet any longer. I have been raising cells by the Doolittle plan for three years, in upper and lower stories, with the laying queen in the hive all the time. I have not made an artificial cell for two years, and would not think of going back to that plan. I use strips of drone comb with the cells cut down half depth, and place a larva in every other cell. This gives room to cut them apart. I often get every cell accepted, and as many as 22, though I destroy all but about 12 or 15. I make a frame with top-bar and ends only  $\frac{1}{2}$  inch wide, and do not put on a bottom-bar, but put in a bar about  $\frac{3}{8}$  square, half way between the bottom and top. This middle bar is to fasten the strips of drone comb to.

I next cut my drone comb in strips about  $\frac{3}{8}$  wide and 4 inches long. I use three pieces for each frame. To fasten them to the bar I use melted wax. I dip each piece into the wax, first letting the edge of one side touch the wax, when it is placed on the bar, and it is fixed perfectly solid in a moment. I can fasten a strip of drone comb in the same time it would take to fasten one artificial cup. This, I believe, is the same plan given by H.

L. Jones, of Australia, some time ago in GLEANINGS.

As stated above, I have used this plan for two years, and with perfect success at all times, from early spring till late in the fall. Before I began using the strips of drone comb I used the artificial cups; but I have been much more successful with the drone comb than with the cups, and it is so much less trouble to prepare the strips of comb that I would not think of fussing with cell-cups.

It seems the Barber plan of using shallow frames in comb honey, supers to get the bees started working above, is gaining favor rapidly. No doubt many were working along the same line at the same time. In an article in the *Progressive Bee-keeper* for Jan. 1, 1898, I recommended this plan of getting the bees started above; also in GLEANINGS, Nov. 1, 1898, I recommended this plan to Dr. Miller (see his comments in that number).

My experience in using bait sections is the same as Mrs. Barber described in June 15th GLEANINGS. If the season is poor they fill the baits and leave the other sections untouched.

This season I filled supers full of drawn comb the same as I had been using as baits before. I do not practice using the shallow frames above sections. I can use them another way, which is more profitable to me. After they are partly filled, and the queen has filled a few of the central combs with brood, they are taken off and placed on those not yet strong enough to work in supers. I thus keep on till all are strong and working above. When the supers are taken off and the honey extracted, the combs are put away until the fall flow of dark honey, when they are put on the hive again in place of the section supers.

There is one point just mentioned by Mr. Louis Scholl (page 431) that needs more emphasis. When a set of shallow frames are placed on the colony just before the flow, the queen will occupy all the cells below, clear up to the top-bar; whereas, if no combs were given them above there will be  $1\frac{1}{2}$  to 2 inches of honey stored between the top-bar and the brood, which is the case every time, in this locality at least. It is the point so often emphasized by Mr. Doolittle, that, if the bees once get to storing below, it is hard to get them into the notion to go above; and, by the way, this seems to be the strongest point against deep frames for comb honey.

Dona Ana, N. M., June 23.

[If you have a method by which you are getting drone-cells, as you describe, started into queen-cells, in a single-story colony having a good fertile queen, you have done what no other queen-breeder has accomplished heretofore. H. L. Jones, J. D. Fooshe, and others who use drone-cells in lieu of queen-cups, are obliged to put these strips of drone comb *first* into a queenless colony to get them started; then when "once started" they can be transferred to colonies having fertile queens.

Well, now, if you are obliged to put these drone cells into queenless colonies to get them

started, I do not see how you save any labor over the method that makes use of Doolittle cell-cups, the same being placed directly in a hive having a queen.

Is it not possible that you have not learned how to make Doolittle cell-cups rapidly? The man who rears our queens has no difficulty in making them at the rate of 1500 a day, and with proper appliances they can be turned out at the rate of several thousand a day, and the work all done by a cheap boy or girl.

Now, if you do not get around the use of queenless colonies, I hope you will tell us in the next issue of GLEANINGS just how you do it. By the Doolittle method of using cell-cups, it is not necessary to have a queenless colony in the apiary, except during the time the ordinary virgin queen takes to become fertilized, and even then, under some circumstances, these young queens will sometimes take their wedding-flight from an upper story of a colony having a good queen below.

But there are several points in favor of the Doolittle cell cups: The cells are more regular, easier to put into queen-cell protectors, and they are less liable to be damaged in handling. —ED.]

#### APIS DORSATA.

Bee-keepers of Australia After Them; Length of Tongues of Dorsata.

BY H. L. JONES.

I note in GLEANINGS that you are now making renewed efforts to introduce *Apis dorsata* into America; but as you already have been on this same trail for some 20 years I reckon we shall get ahead of you unless you accelerate matters considerably on your side. As far back as 1878, A. I. Root offered \$100 for a single colony delivered to him; but no one succeeded in obtaining the prize, and now you are offering \$25 for a single queen alive. You think it will be a joke if GLEANINGS gets ahead of the government in securing the big bees; but I'm sure it will be a bigger joke if we get ahead of GLEANINGS with its 20 odd years' start.

By this mail I am sending you sample workers of *Apis dorsata* that I received from a customer of mine (a practical bee-keeper) who left this colony a short time ago, and is now domiciled in the Malay Peninsula, right where *Apis dorsata* abounds. I have just shipped him four colonies of Italian bees, with more to follow; and if he finds that *dorsata* can be domesticated he will return some colonies in those specially constructed shipping-hives. The sample bottle that I send you contains four *Apis dorsata* workers and one *Apis ligustica* that I put in for the purpose of comparing sizes. My correspondent thinks they can be domesticated, and I herewith quote a little from his letter, which I think will be of interest to you:

I return by this mail your mailing-bottle, with samples of native bees here; but I am not qualified to say whether they are *Apis dorsata* or not. I think they can be domesticated, but it is very difficult to get them. I have already expended about \$9.60

hunting after them and paying natives to allow me to take them from trees near their houses; but when I return with ladders, etc., to take them, I find that they have been smoked away with torches on long poles. Whether this is done for the honey or through some superstition I can not say. As these bees attach their combs to top branches of very high trees (probably because they are hunted so much by Malays), and generally to very thick branches, it is no easy job for one man (I know of no other man here, either European or Asiatic, who will go near bees) to get up so high and cut the branch and lower it, and then carry it home; however I hope to succeed if I can find them on accessible branches. I would cut the branch the same length as a top bar if possible, or of a length that would fit some box, and then fix a cover about a foot above the box, and gradually lower it after about a week, leaving an entrance above as well as below for a time; then I would put a frame with a starter on each side of the bees.

There is a smaller bee here, something like a dwarfed Italian, but it is said to be not a very good honey-gatherer.

Now, friend Root, I should like to have you examine these bees minutely, or pass them on to some expert so that the relative length of the tongues of these and *Apis mellifica* might be ascertained. According to some measurements made by Mr. F. W. L. Sladen, of Ripple Court, England, and reported in GLEANINGS, 1897, page 487, the tongue of *Apis dorsata* is scarcely any longer than that of our ordinary bee; and if such is really the case it might not be advisable to introduce them, even if they could be domesticated and their migratory instinct overcome. To my unaided eye, however, their tongues seem much longer than those of our common bees.

As soon as I learn something definite regarding the value of these bees from a commercial standpoint I will write you further; and I also trust that I shall then be in a position to scoop that twenty-five-dollar bill.

Goodna, Aus., May 6.

[All right, friend Jones. If you bee-keepers of the southern hemisphere succeed in getting *dorsata* into civilized beedom before we do, we shall rejoice with you, and at the same time have the satisfaction of knowing that, if they have bad traits, you will pay for the experiment and we will get the benefit of it. However, if we can get them before you do we will take our chances.

I have just been comparing the specimens of *dorsata* sent by you, and those sent by Mr. W. E. Rambo, of India. Those from the latter look much like very large five and six banded Italian bees; while those you send have less yellow on them, are somewhat of a bluish cast, and are, I should judge, slightly smaller. They are evidently *dorsata*, however, but may be a different variety, just as we have varieties among the *Apis mellifica*.

With regard to the tongues of the *dorsata*, bees, as soon as placed in alcohol, have a fashion of pushing out their tongues to their fullest length; and it is evident that the specimens of *dorsata* sent us did that very thing. I may be mistaken, but their tongues do not appear to be any longer than those I have seen on red-clover Italians.

Cheshire says something about the wonderful harmony in nature; that the tongues of bees are adapted to the length of the flower-cells as we find them in the vegetable kingdom. Is it possible that the tongues of the



different species of honey-bees are of very nearly the same length for that reason? One of the chief things that have been claimed for *dorsata* is that it would have a longer tongue, and this inference seems to be drawn from the fact that the bees are larger, and therefore the tongues would bear a direct proportion in length. If Sladen's measurements are correct, there would seem to be but little in this. I will gladly furnish a dozen specimens of the *dorsata* to any professor of a college or other competent person having the necessary micrometer scales to make the measurements.—Ed.]

#### SCIENTIFIC BEE-STINGING.

How it Feels to be Stung 150 times; an Interesting Account of a Painful Experience; Frames Shallow vs. Langstroth Frames; Hoffman Frames; Big Hive, Big Frame, Big Extractors vs. Small Hives, Small Frames, Small Extractors.

BY W. A. H. GILSTRAP.

In May 1st *GLEANINGS*, p. 361, is the sentence, "Could the bees have been turned on the tormentor of the faithful old horse it would have been a pleasing feature of the program." To me the sight of bees stinging even such a man would not be pleasing personally; but there is so much in his suggestion, from a scientific standpoint, that it certainly should not be treated lightly.

To start with, we care less about the scientific aspect of horses than of people; that is, horses are not such interesting subjects as human beings. Then man has a finer nervous system, and the stinging of bees would probably act quite differently with him. But man's chief advantage is that he can tell you how it feels as it goes along. A good doctor should make note of this at once, for the subject is liable to forget. If a colony with any vim is used twenty minutes, a man bent on suicide should be requested to act as bee-tormentor, for it would certainly prove fatal to man or horse.

Contrary to my wish, I have had some experience along that line. When loading bees on a wagon, with the team hitched to it, a hive "sprang a leak"—not a strong colony, but how they did come out! Having no good Cornell smoker, of course I had to unhitch; for to leave the horses to be stung was out of the question. To free jumping, kicking horses is no easy or quick task. All the time the bees were using my head for a pin-cushion. At the first my hat fell off, or was knocked off, and the bees seemed to think the hair of my head was the only place about me worth settling on. Soon all individual stings were lost track of. The poison deepened and thickened, it seemed, giving my head a numb sensation, the actual pain diminishing considerably, though the scent was sickening.

The horses lost no time in getting to a spring about 200 yards from the wagon, where I stopped them. My next move was to wet my head with cool water. Was that a mistake? After tying the team to trees I sat

down on a rock to rest, for I was quite faint. External swelling was less than one sting sometimes produces. Inside my head the swelling was distressing, causing my sight to fail entirely at times, it seeming that my eyes would be pushed out of their sockets. Itching all over my person was intense. There seemed to be a stream of suffocation extending from my throat to my heart, which threatened to stop the latter organ from working. These terms may not be correct, but they are the best in my vocabulary. I went to the house, a few rods away, lay down, and soon went to dozing. In two hours I could go to work, but did not feel well for several days.

My brother, a lad at the time, was a witness, and he never questioned my estimate of 150 stings in about half a minute, so far as I know. If my experience is worth any thing, death from bee-stings is not extremely painful. Perhaps some one has experimented further, and can show my mistake. Can a horse tell?

If you wish to know the effect of stinging on the bees, try buckskin gloves for them to sting.

Should a "gentleman" of "high moral standing" have a horse severely stung for little or nothing more than idle curiosity in this country, he would probably find proceedings commenced against a heartless criminal. To say less would not express my full view, but I do not blame the editor for thinking well of the man.

A correspondent wrote me recently, asking: "1. How would you like a twelve-frame hive, same frame as Langstroth, except two inches shallower? 2. Why? 3. Why not? 4. What hive is better? 5. Why?"

As the questioner reads *GLEANINGS*, it may be well to answer him through its columns:

1. If you mean an apiary of such hives it would certainly suit me very well. To have several kinds of hives, especially frames, in one place, makes many extra steps, and is a canker on an apiarist's time, and therefore on his income. The hive mentioned is certainly good for either comb or extracted honey. For comb honey it would be a good hive by contracting and expanding intelligently. It has been truthfully said that expansion is the better part of the contracting management. But as I shall not likely use many sections soon, we will regard it as an extracting-hive.

Because it is an odd-sized hive I shall assume it is not very well made. Very few are. Regular goods are frequently poorly made. A supply-dealer who makes many hives wanted to buy a hive made by a competitor on this coast, saying he had several Eastern hives, and the hive in question was the best he ever saw. The super was well nailed, and some bee-keepers present noticed that, when it was placed on a table, one corner would remain half a bee-space above the table while the other corners touched.

If the frames are Hoffman style, which have been so popular since 1891, I could soon remedy that defect with a sharp knife or plane by removing the end-bar projections. One season, with 70 Hoffman hives (eight-frame L.), in which I many times felt like kicking the

frames out because they seemed determined not to be pried out, may not be a fair test.

2. Because the frame is small enough for ladies to handle, and also large enough to contain considerable honey or brood. If the bottom-bar is  $\frac{1}{4}$  inch thick, and the top-bar  $\frac{3}{8}$ , the comb surface is a trifle more than the Dantons use for extracting.

4. In my opinion the ten-frame Langstroth is better.

3, 5. With top and bottom bars, as above indicated for each frame, 13 of the frames you speak of would hardly contain as much comb surface as 10 L. frames. The latter are not too heavy for me to handle, and I certainly do not need to handle so many to accomplish a desired result, which is quite a time-saver. The L. frame is cheaper, as there are fewer pieces to make. It is easier to lift, as you can get your load nearer to you. To a man who wants the hand-holes in the side of the hive, this advantage may not be apparent. They load to much better advantage in an ordinary wagon. The lid is not so apt to leak rain, nor the bottom to leak bees, as the broad hive would be. The corners are not so apt to give way in a few years with the L. hive as with the broad shallow one. If I should want to sell them there are five men who would prefer the L. hive to one who would prefer the other kind.

However, I have no desire for a large frame like the Dadant or the France "shot-tower" frame. I used to want every thing big. A few months with a big horse convinced me that one of an average size is worth more to me. A few years' experience with a six-frame extractor has cooled me down in that line, and next month I shall get a two-frame machine. For three years I have had a little wife, and I would not now trade her for any jumbo in the State.

Grayson, Cal., May 12.

[I infer that our friend Mr. Gilstrap has had an unpleasant experience with the Hoffman frames. The-e he refers to doubtless had the old-fashioned top-bars, and there is no denying the fact that in some localities they were very difficult and unpleasant to handle; but any one who has these old-fashioned frames can very easily convert them into the new style, with suitable end-spacers.—ED.]

#### TRAVEL-STAIN.

##### Do Bees Have Dirty Feet?

BY A. J. WRIGHT.

Hardly an issue of GLEANINGS but has one or more articles on travel-stain. I believe the expression as applied to the cappings of comb honey to be practically a misnomer. A honey-bee with dirty feet! Why, bless you, no! They are the cleanest little fellows imaginable. I dare say they wash a hundred times where you do once, and then you call them dirty? Didn't you ever see a bee "making its toilet"? Well, it's worth your time. First it washes its hands thoroughly, then its

face, then it passes its hands over the top of its head, washing that; also the back of its neck. Next its body is gone over, and finally it carefully finishes by washing its legs from its body clear to the soles of its feet; and now after this thorough renovation do you dare call it dirty?

I think somewhere in the A B C of Bee Culture occurs the statement that "bees have a fashion of running through their apartments with muddy feet." Now, this *must* be a matter of "locality." My bees never do that, but, on the contrary, take a great deal of pains to have their feet clean. Pick up a bee by the wings, and put its feet into mud or any other sticky substance, and the first thing it will do after being liberated will be to clean up.

Now, if you want to find out whether the so-called travel-stain is due to the dirty feet of the bees, try the following experiment: Take a board of any convenient size, not less than ten or twelve inches square, and, after thoroughly washing your hands, tack a piece of clean white paper on this board, and place it, paper side up, in front of a strong colony. Do this when plenty of honey is coming in, and the bees are working in the sections. Place this paper close to the entrance of the hive, so that the bees will use it as an alighting-board, and be compelled to travel over it with their dirty little feet. If you are *sure* that your fingers are clean, handling the board by the edges, and will put the board out late enough in the morning, and take it up at night before any dew falls, you will find this paper, so far as the bees are concerned, as clean and white at the end of a long honey-flow as when you first placed it before the entrance.

Where, then, does this so-called travel-stain come from? It is quite difficult to state a disagreeable fact in an agreeable way; and about the only palliative method that I know of is to include one's self in the statement, so here goes: So-called travel-stain has its origin mainly in the dirty or neglectful habits of *us* bee-keepers. If the bee-keeper wishes to have nice white sections of honey, he must, at the time of putting on sections, remove the old bottom-board and put a new one in its place. The stained appearance of cappings is due almost entirely to the admixture of foreign substances, and these are obtained to a great extent from the dirt and litter of the bottom-board. Keep every thing in and about the apiary neat and clean, and you will have no cause to complain about stained cappings.

But some one asks, "Why do cappings of finished sections that are perfectly white become darker if left on the hive?" It is because bees are usually doing something; and the honey-flow having ceased they use the refuse of the bottom-board, and thicken the cappings. Some one has said that the bees daub propolis over the capped sections. Well, if I had a colony that would do this I would kill the old queen and give a new one. Isn't there some other word that, in justice to our friends the bees, can be substituted for travel-stain?

I note that we are to have a new edition of



the A B C of Bee Culture. I wish this word "travel stain," and the "muddy feet of the bees," could be revised out of it in some way. Bradford, N. Y.

[In the new edition of the A B C book, under Comb Honey, there is a newly written article on the subject of travel-stain. I have endeavored to cover in this the main points that were brought out in the recent discussions on that subject, especially the fact that, in the generality of cases, the coloring or foreign matter goes clear through the cappings. I do not relieve the bees of *all* responsibility of having at times dirty feet. I have seen entrances of hives that were pretty badly smeared up with yellow, and have naturally concluded that this yellow was the so-called travel-stain that came direct from the bees' feet. While I have not tried the experiment with a sheet of paper, yet if left there I should expect it would in time be somewhat discolored. We will try the experiment in our own yard, and report the results later.—ED.]

#### A CASE OF BEE-FEVER.

How to Put Energy into a Slow Poke of a Horse;  
Closed-end Frames; Queens from Different  
Breeders.

BY E. W. BROWN.

*Concluded.*

The season last year was a poor one here as well as in most parts of the country; but with my 40 colonies, and 10 not mine, I produced 3 tons of honey, mostly comb, in plain sections, and increased to 60 full colonies and 5 weak ones. Of course, I had a fair fall flow. When I saw all this honey coming in I began to wonder how I could dispose of it. Dr. Miller says there are two things that bee-keepers are most interested in; 1. How to get a crop of honey; 2. How to get rid of it. I soon decided how I would get rid of my crop. I looked around till I found the best ten-dollar horse in the county. It had but a single fault—it wouldn't go. It would "whoa" better than any other horse I ever saw. After I bought the horse the former owner said that it was just a little inclined to be lazy. Perhaps electricity would be indicated in this case, I thought; and so one day I proceeded to attach concealed wires to the harness in such a way that I could, by pressing a button in the wagon, give the horse a mild electro-stimulus under its tail from a medical induction-coil run by dry batteries. This arrangement proved to be a great success, and it increased the value of the horse 175 per cent. I can now overtake and pass any thing on the road, to the great astonishment of the people who know the past record of the horse. One touch of the button furnishes sufficient ambition for a mile journey. I now seldom have occasion to touch the button, for the horse is nearly cured of its loss of ambition. When I speak it gives two switches of its tail and away it goes. I have made good use of

this horse in disposing of my crop; and as I now have an out-apiary four miles away it will be a valuable help to me this coming season.

So far this season I have lost three colonies from diarrhea. These colonies did not have the ends of their combs closed, as I have explained. Some experienced bee-keepers (among whom I can mention James Heddon) take no stock in these "bee-heat" theories; some others (among whom I can mention Capt. J. E. Hetherington) believe that closed-end combs are of considerable importance, in our latitude at least. Some of my colonies which are on closed-end frames are packed in chaff, and these bees show no signs of weakness or diarrhea whatever, in spite of the fact that this has been an extremely severe winter for bees. I use cork-dust cushions on the top-bars, with plenty of ventilation above the cushions, and leave a  $\frac{3}{8}$  entrance open the full width of the hive. Other things being equal, those colonies with the greatest space under the frames lose the fewest bees.

Now, there is another class of intelligent apiarists (Dr. C. C. Miller among them) who "know" that closed-end frames are best for the bees, but "don't know" that they are best for the *bee keeper*, all things considered. Perhaps after I have had more experience I "won't know" any more about it than Dr. Miller; but at present I have so much faith in closed-end frames that I am going to have all of mine made that way until I learn that it is better not to have them thus.

Perhaps a good cellar is the best winter resort for our bees; but not all of us have access to suitable cellars; and then there are such men as C. P. Dadant, with hives weighing less than half a ton, who *must* winter outside.

Speaking of large hives reminds me of my own experience. As I have had but a *limited* experience with 8, 9, 10, and 12 frame hives, and as I am afflicted with bee-fever, my advice is, of course, valueless; however, if you want to know what size I think is best for comb honey I will tell you. Eight combs are too narrow; ten combs are too wide; nine combs are just right. I am inclined to believe that the L. frame is at least an inch too deep for a 9-frame hive. The depth of the frames has nothing to do with the wintering problem unless you go to extremes either way. What appear to be the healthiest colonies I have this winter are in brood-chambers six inches deep.

I have received queens from twelve different breeders. I find that there is a difference in them—in the queens and in the queen-breeders. What seems to be the best queen is from a breeder for whom I have no respect. The queen came hundreds of miles by mail, and cost \$1.00 three years ago. Her bees cap their honey *very* white; they are exceedingly gentle; *they waste no time gathering propolis*; they have never swarmed; they are fair to look upon; and last, but not least, they have always produced a little more surplus honey than the best of the other colonies. Where's Doolittle? Say, Doolittle, is this queen not worth \$10? I think it was 185 pounds of

honey that I took from her hive last year; 150 of it comb honey all in plain sections.

Last season I noticed that this queen had but very little brood in the hive at the close of the honey-flow, and I am afraid she will be superseded this coming season (she is clipped, so I shall know). I want to get another batch of queen-cells from her eggs, and then I should like to exchange her with Doolittle or somebody who can use her. I wrote to the man from whom she came, asking if she was a hybrid, or if she was of a pure race and would be suitable to breed from. He answered my letter, but entirely ignored my question. There seems to be a good deal of mystery about this man, and I have no use for these mysterious people with their wonderful secrets.

I must be wandering from my subject. I was writing about bee-fever, and I guess the thoughts of it brought on an acute form of the trouble. You see I have it pretty bad yet. Just think of it—when my wife wishes to get my attention to tell me something she generally finds it necessary to exclaim "Bees!" Is there no help for me, Uncle Amos?

Eden, N. Y.



#### BEES—HOW LONG DO THEY LIVE?

*Question.*—Picking up a paper recently I noticed an item to the effect that bees were very short-lived insects, and that the average life of the worker during the summer season is but thirty days. Can this be the truth? I had supposed that workers lived six or eight months, if not a whole year.

*Answer.*—It seems to me that no one should be ignorant on this subject when one experiment will tell him the truth in the matter, and convince him that the average life of the worker is about 45 days, or one-half more than was given in the item which the questioner alludes to. Take a colony of black or German bees, for instance, and about the 10th of June take the queen away and introduce an Italian queen, keeping record of the date on which this change was made. In 21 days the last black bee will have emerged from its cell; and if the Italian queen went to laying immediately, the first Italian bee will have made its appearance, which fact should be jotted down also. At the end of 45 days from the time the last black bee came out of its cell no black bees can be found in the colony. At 40 days many will be seen; but they grow less and less each day, so that on the 44th it will be very few indeed that are left. This is for the summer months, but does not apply at all for those of the fall, winter, or spring. The life of the bee seems to depend on the work it does. Thus, when it labors the most its life is the shortest. Hence it comes about that, through the inactivity brought on by the advent of cool and cold weather, the individual

bee can live from six to eight months. This is proved by changing the queens as before, only it is to be done this time about the middle of September. Soon after the first of October the last black bee will be out of its cell; but I have often found black bees in such colonies on the 1st of June of the next year, and in one instance there were a few still remaining on the 4th of July; but that year the bees were kept in their hives on account of bad weather very much of the time previous to this. Also, when spring opens there will be a few Italian bees in the colony so treated, which shows that very little brood is reared from October till April, as well as to tell us that more bees die in two months in the spring than during five or six months of winter.

The life of the drone is regulated very largely by the workers, for they are usually driven off or killed by the workers long before they would die of old age. Any sudden cessation in the flow of honey from the fields is often sufficient reason for their being driven out to die, or the killing of them by stinging, if they are persistent in staying in the hive; so it is hard to tell just what age they might attain to, were they allowed to live to "a good old age." Most apiarists think that they would live about the same time the workers do; but I am of the opinion that they are a little shorter-lived. It is a rare thing that any drones are allowed to stay in the hive after the honey-harvest is over for the year; still, we have a few reports of drones which have wintered over, and I have known of a few doing so, and that in a colony having a fairly good queen. But the hive was crowded to its utmost with honey during the fall.

The average life of the queen, where a colony is allowed to stay in a normal condition, is about three years, although some have been known to live five years. They live also in proportion to the work they do, or, more properly speaking, in accordance with the number of eggs they lay, as egg-laying is the only work they do. Under our present system of management the queen is often coaxed to lay as many eggs in one year as she usually would in a tree or box hive in a year and a half or two years; hence most apiarists think that all queens should be replaced, after the second year, with those which have just commenced to lay. However, I do not make this a practice; for I find that, as a rule, the bees will supersede their own queen when she gets to be too old to be of service to them; so I trust the matter to them, believing they are less liable to mistakes along this line than I am.

#### YELLOW OR MAROON.

Having a little space left I wish to say a word regarding the last Straw, and the editor's comments, found on pages 494 and 495 of July 1st GLEANINGS. What I wrote in the *American Bee Journal* was for the sole purpose of calling out Dr. Miller as to certain points regarding the markings of bees and their purity, which points have been so constantly put that queen-breeders have been classed as "frauds;" but the good doctor only helps the fault-finders in their notions



by his answers in the *American Bee Journal*. And then he appeals to you, Mr. Editor, who, like Dr. M., furnish these same fault-finders with a club to knock your own brains out; for parties, during the past, when writing me, have classed *you* with the rest of us as sending out queens that did not give bees as represented; and the reason for this is that bees from imported queens have been classed as *yellow*, which were not yellow, when put to a practical test. To prove your point you appeal to the Standard Dictionary. I have only the Student's Edition of that dictionary, and in that I find, under the heading of "Yellow," this: "Having a color similar to that of the spectrum between orange and green, and resembling that of brass, gold, saffron, etc." As I could not well apply practically the spectrum part, I have just taken a new \$5 gold piece I happened to get the other day (don't get one very often, even though we are on a gold basis), a piece of burnished brass, a piece of orange-peel (the dictionary says saffron is a deep orange color), a chestnut (maroon), and a piece of leather (which I send you with this article, so you can see it and put it beside your bees from imported queens if you wish). Now for the result: The three horny segments next the thorax on the bees from my imported stock are *much nearer* the color of that piece of leather than any of the other four colors I took, and that piece of leather is *very much nearer* chestnut (maroon) color than it is to that of brass, gold, or orange. Then, if I am any judge, that piece of leather can not be called yellow in any *true* sense of the word, whether I say, "My, oh my! what is the matter with E. R. Root's and Dr. Miller's eyes?" or not. I have had bees from imported stock that every visitor coming to the yard insisted were nothing but black bees; and only as I would cause the bees to fill themselves with honey, and place them on a window, would they be convinced, when the dark maroon color would be set out more boldly. Dr. Miller's answers in *American Bee Journal* show that he thought Doolittle wasn't "nice" in asking those questions, and that he did it in a censorious way. It would seem that Dr. M. had known me long enough to know that I never write any article for any such purpose as that. Purity, three yellow bands, five-banded golden Italians, etc., have been harped on so much that the masses of bee-keepers have been deceived, or have got a wrong impression, so they have become like the man who buys poultry "marked to a feather;" and when they do not receive something which these claims have caused them to think exists, they are ready to class the sender as a deceiver and a fraud. And I hoped the good doctor would "catch on" and help us queen-breeders by showing that bees from an imported queen are not *yellow* in the true sense of the word, because such a true statement from him would have much more weight than the same statement coming from half a dozen queen-breeders. But the doctor thought me hypercritical, and so drove me to put in this defense of myself and other queen-breeders.

[There is one thing, friend D., that perhaps you have not yet taken into full consideration. In speaking of the color of Italian bees direct from Italy, I referred not to individual bees or queens, but to the average importations we have received of them every year. We have so far this year received from Italy by mail some 75 queens, and have obtained that number direct from the Mediterranean every year for the past twenty summers. The yellow in the imported is darker than the yellow in bees that have been bred in this country for a long time: so far we agree; and to remove any possibility of misunderstanding, we say in our queen catalog, and have reiterated for years, in referring to imported Italian queens, "The queens themselves are a little darker than home-bred queens. . . . The queens as well as the bees are leather-colored." Here we agree again. But in all the hundreds we have received I could not call one of them maroon or chestnut. Here we don't agree. Yellow, however, stands for a variety of shades, and that color much more nearly describes the color of the imported stock than chestnut or maroon; and if you will hunt up a Standard Dictionary with the spectrum you will agree, I am sure. But it seems to me we are in danger of splitting hairs on an unimportant point.—ED.]



#### SWEET CLOVER FOR BEES AND STOCK IN ILLINOIS.

This clover is one that yields a large amount of honey. It begins to bloom in this latitude in the early part of July, usually; some seasons a little earlier, others a little later. By the time white and alsike clover and basswood are going out of bloom, sweet clover is well out in bloom; and where abundant a continuous bloom will be had for securing surplus honey of two months or more. When a part of this clover is pastured or mown for hay, such will bloom the second time, and continue in bloom until after hard frosts. I have seen bees working on this bloom in October, when all other honey-yielding plants were killed with one exception, that being giant white-spiral mignonette, which is sometimes grown in flower-gardens.

Sweet clover stands drouth well, but gives a better yield of honey and pasture with frequent showers. The honey is light in color, but, to my taste, not of as fine a flavor as that from white or alsike clovers or basswood. In the dry regions of the West, sweet clover and alfalfa have proved valuable plants for bees and stock. The hay is largely fed to stock. Here cattle pasture on it freely, and the hay has seemed to give good satisfaction, as stock soon learn to like it.

This plant should be grown in all waste places, and thus take the place of the noxious weeds which grow there.

For hay this clover should be cut while the stalks and leaves are a bright green, and before any seed-stalks appear. A large amount is grown on an acre when a good stand is secured.

The plant is not so hard to get rid of when desired as some suppose. When the land is broken up and cultivated the plant is gone, and no further trouble need be feared, any more than from other clovers. Pasturing the field so no seeds mature has the same effect if kept up one or two summers. Some farmers in this State are growing large fields of this clover for feeding to stock in pasture and hay, so I am credibly informed.

In sowing the seed the ground should be made fine and rather firm, as better results are so secured than when the ground is left loose to quite a depth. It blooms the next year after sowing the seed.

#### DOES ALSIKE CLOVER WINTER-KILL?

My article on alsike clover, which is published in July 1st issue, page 503, was written in February, and its wintering qualities given were up to the past winter. At this writing I am forced to report that it badly winter-killed last winter, as did the white clover where it had been fed down closely last fall, as too many do. Last winter was here the most severe on trees, vines, grasses, etc., that we have known in the 40 years we have lived here. The ground was bare most of the time, and only one or two inches of snow at any time.

I wish to make this correction so that no wrong impression may prevail in reference to alsike clover here. All its other good qualities named on page 503 I have proven conclusively.

Our abundant rains this season have brought on a fine growth of the clovers, which are now in bloom, but yield little honey so far. Basswood has just closed, and yielded lightly in honey.

F. A. SNELL.

Milledgeville, Ill., July 7.

#### SPRAYING OUT OF SEASON; RESULTS.

Inclosed you will find something about spraying fruit-trees while in bloom, and the results. The same was taken from the *Granville Sentinel*, a local paper of Granville, N. Y., not far from here. Dorset is in Vermont. We know of others not far from here who are spraying out of season. It is high time that we bee-keepers were looking into the matter.

Caldwell, N. Y. F. A. LOCKHART.

#### IT KILLED THE HONEY-BEES.

As will be seen by the *Sentinel's* Dorset correspondent this week, the spraying of trees with a poisonous solution, in an effort to exterminate the worm-pest, has resulted in destroying nearly all of the honey-bees in that section. One poor woman lost forty colonies.

#### WORM POISON KILLS HONEY-BEES.

Many of our citizens have been engaged in waging a fierce war upon the worm pest that has attacked the foliage of our shade and fruit trees. The worms have appeared in great numbers. The vermicide in general use is a solution of Paris green and lime. It is only partially successful. An unexpected and serious result has immediately followed its use, so that it is a question whether the worms or the poison can prove the more destructive. Nearly a hundred colonies of bees have proved a total loss in this immediate vicin-

ity. Many more will probably suffer the same fate. As a rule, the class of people thus afflicted can ill afford the loss of these bees. Their income largely depends upon their labors. Foliage of trees in blossom or bloom should not be sprayed with this rank poison. One person, a widow, in moderate circumstances, has lost her entire stock of bees of forty-two colonies. These were in a healthy condition, and, up to the time of the spraying of the trees, were actively at work.

[For two or three years back, just following fruit-bloom, or about that time at least, we have been having some dead brood in our hives. It is not like foul brood in appearance, and always disappears in a short time. We have finally come to the conclusion that it must be the result of spraying when the bloom is in. Most of the farmers in and about our vicinity are intelligent reading people; but it is evident that there is some one or ones who are spraying at just the wrong time, and we shall make an effort to find out who it is. If reason and facts will not stop it we may have to resort to the more powerful arm of the law.]

In many States there is no law against spraying during the time the trees are in actual bloom, notwithstanding all the best authorities admit and teach that just as good and better results may be secured before and after the bloom. The bee-keepers of Vermont and the vicinities referred to should bestir themselves to see that there is not a repetition of such work. If it is not ignorance it is ugliness that is at the bottom of it.—ED.]

#### WELL-FILLED OLD-STYLE SECTIONS.

I see you highly recommend the fence separator and tall sections. I have been having, for two years, as finely filled sections as can be desired, with old-style separators and  $4\frac{1}{4} \times 4\frac{1}{4}$  sections. I bore four holes opposite each section,  $\frac{3}{8}$  inch, for bees to pass through, with good results.

A. L. BUTERBAUGH.

Utah, Pa., May 26.

[By boring the holes in the separator, you make of it, in effect, a fence—that is, a separator through which the bees can pass back and forth. You will secure a part of the advantages of the fence system, but not all.—ED.]

#### STRONG TESTIMONY FOR THE FENCE AND PLAIN SECTIONS.

I have just read Editor Leahy's editorial on "Fence Separators and No-beeway Sections." It leaves me with the impression that this man Leahy must have a slight prejudice against these things. If he can only succeed in convincing all the other honey-producers that it is a sad mistake to use fences and plain sections, then I will be the Root Co.'s only customer for these things. No, gentlemen, it did not worry me the least bit, upon reading this article, to think that I have been and gone and stocked up with 2000 fences, and have just ordered 10,000 more plain sections. If it were necessary for me to buy new fences every year, and throw away the old ones, I am convinced that it would pay me in dollars and cents to do so. Not only this, but if it were necessary to throw away the supers also it would pay me to buy new ones every year,



so great are the advantages of the fence and plain section over the old-style section with a beeway part way across the top and bottom.

Sections are bound to shrink after giving to the bees. Bee heat is a very dry heat. Two or three days after the supers are put on the hives I make the round and tighten the screws in the supers, with no disturbance whatever to the bees. This is the secret of getting clean sections—sections that you can put into the shipping-cases without scraping (fall honey excepted in this locality). It will surprise one to see how many times he can turn the screws around a day or two after putting on the supers. It seems the bees evaporate every particle of moisture. Bees are natural moisture-expellers, in summer at least.

Eden, N. Y., June 14. E. W. BROWN.

[We are not worrying about the future of plain sections and fences. They are more than holding their own.—ED.]

#### GROWING BASSWOOD-TREES FROM THE SEED.

In the fall of 1893 I put some dirt in a pan, and some basswood seeds; then covered with an old mat, and covered the mat with dirt; then left the pan outdoors all winter. In the spring of 1894 I looked at the seed, and not one had sprouted. In the spring of 1895 it commenced to sprout. I planted them out, but the dry weather killed them, and I supposed that was the last of my basswood seed; but in the spring of 1896 there were 40 or 50 of the seed that came up. In the spring of 1897 they came up very thick. It seemed as if every seed grew. Then in the spring of 1898 there were a few more that came up. Last spring I wanted to plant them in a nursery-row, and the seed was still coming up.

My experience is, if the seed is put in dirt in the early fall, and put in the cellar, and kept wet all winter, a few will sprout the first spring, and the next spring most of them will come up; but it has got to be where the mice can't get at them, or they will eat them all up.

The way I like to raise basswoods from the seed is to plant them in drills with peas, then the next spring there will be enough that come up so we can see the rows; then the spring after, most of them will come up.

I had four rows, 26 feet long, that I got over 900 basswoods from, 4 to 6 feet tall. Two or three had blossoms on.

I have no basswood-trees for sale, as I want to plant a grove of basswoods.

Lamont, Ia., July 22. CHAS. BLACKBURN.

[The point made in the above seems to be that basswood seeds may lie in the ground several years, and finally grow. If all these freezings and thawings and length of time are needed to break or rot the hard shell inclosing the seed, may not the whole matter be hastened by cracking the seeds with a suitable machine, or immersing them for a proper period in boiling water or something of that sort? I believe nurserymen practice both methods with certain kinds of seeds that are slow in germinating. Who can tell us about it?—A. I. R.]

#### THE SERIOUSNESS OF BEE-PARALYSIS.

*Dr. C. C. Miller.*—In June GLEANINGS I noticed the inquiry of Mr. F. D. McMurry, and your answer thereto. As I have had some experience with bee-paralysis I volunteered to give the gentleman some advice, and wrote in regard to it; but I will copy the letter, as follows:

If you follow Dr. Miller's suggestion, "quite possibly the disease will disappear of itself," and meet with success, well and good; but let me caution you that, if you find the disease appears again next spring, be sure to adopt prompt measures to stop it. I have battled with it since 1894, and, though I tried every procedure that came well recommended, the disease spread until, a dozen years ago, I began to destroy every colony that developed it; and this season, though I lost over half of my bees last winter, I destroyed two colonies that showed signs of paralysis, and hope I have throttled it now. What puzzles me is, how my bees got the disease, as no other bee-keeper is troubled with it. I had obtained some from queens from the East, previous to the advent of the malady in my yard, and am inclined to attribute it to this. How do you account for it in your case? I should be glad to hear.

From the above you will discover the estimate I put upon the gravity of bee-paralysis; and though I do not in the least doubt your experience, and as much as has been said of the disease north or south, the latitudinal danger-line seems not to be very sharply defined. I would beg leave to offer my experience as a caution in advising bee-keepers in this State upon this malady.

H. O. VASSMER.

Excelsior Springs, Mo., June 12.

I am very glad to send this word of caution from Mr. Vassmer. What is true of the disease in Northern Illinois is by no means necessarily true in Missouri, and Mr. McMurry will be wise to consider the experience of one nearer home.

C. C. MILLER.

Marengo, Ill.



*W. K., Pa.*—There is no one species that has been denominated a "bee-bird." Perhaps the nearest that comes to it is the ordinary king bird that sometimes proves to be a nuisance in a queen-rearing apiary, and they, accordingly, have to be shot.

*G. W. C., Ohio.*—I do not think it would be practicable to prevent the candying of honey by the use of glycerine unless so large a quantity were used as to make it practical adulteration. I would advise you to let the method entirely alone.

*J. J. M., Iowa.*—In the back part of the A B C book you will find a glossary that gives nearly all the technical terms. If you will consult that you will be able to understand much that is said. Perhaps you have been reading the book too much in snatches. If you read carefully "Hive-making" you will get an idea of many of the technical terms, and to what they apply. Each subject must be read through carefully.



SEE special offers on page 592.

BROTHER HUTCHINSON very magnanimously says bee-keepers ought to read *all* the bee-journals, visit other bee-keepers, and attend conventions. From a purely selfish point of view an editor would be inclined to say, "Take only one journal, and that one our own." But Bro. Hutchinson is away above such a spirit, and always was.

#### SERENADING SWARMS WITH TIN PANS.

A CORRESPONDENT says that the old custom of serenading swarms with tin pans originated from an old act of the English Parliament, giving a person a right to follow his swarm provided he rang a bell, or drummed on a tin pan, to give notice that he (the owner) was after the bees. This old act was passed something like a thousand years ago, and during the centuries since it is evident that the original purpose of the drumming was lost sight of, and that subsequent generations came to the conclusion that the serenading induced a sort of spell on the bees, causing them to cluster so they could be captured.

#### STORING HONEY IN A SPONGE, ETC.

AN item is going about in the papers, to the effect that bees have been taught to store honey in sponges, and the sponges are then passed through a clothes-wringer so as to squeeze out the honey, etc. Years ago I selected some sponges with holes in them as near the size of honey-comb as I could get, and tried to get bees to store honey in them, but I did not succeed. Bees will store honey in a receptacle only about the size of regular honey-comb. Unless they can crawl into the cell they will not use it for honey. The holes in a sponge that are too small for a bee to enter would make an excellent place for moth-worms where the bees could not get at them. The whole story is no doubt a newspaper yarn, and we hope it will not go the rounds of the papers as many such foolish things do.—A. I. R.

#### WHY CLOVER AND BASSWOOD DID NOT YIELD NECTAR.

IS there any one among our readers who can tell why, when all the conditions are favorable—plenty of rain, plenty of warm weather, and clover in abundance—it should not yield nectar in the good old-fashioned way? It is true that a good many of the favorable conditions have been lacking in some portions of the country. In our locality we have had all of them, apparently, and yet we may say there is the smallest yield from clover we have ever known. Some days ago I was talking with Vernon Burt about the prospect for basswood. "Why, there is plenty in bloom," said he, "but the nights are too cool." A few days

ago, while talking with R. F. Holtermann, he remarked that the showing from basswood in Canada was good, but that it had been too warm—that they needed cooler and more moist weather. Well, now, I should like to know what are the best conditions for a secretion of nectar from basswood. If there is any scientist or bee-keeper who is able to give us the solution of these two problems I wish he would answer.

#### THE PHILADELPHIA CONVENTION.

WE have just received a copy of the program for the national convention of the United States Bee-keepers' Association to be held in Philadelphia Sept. 5, 6, 7, next. The following is the program:

Necessity of Pure-food Legislation from a Bee-keeper's Point of View.—Rev. E. T. Abbott.

Out-apiaries, and Their Management for Comb Honey.—W. L. Coggeshall.

Possibilities and Difficulties of Bee keeping in Cuba and Porto Rico, and the Effect of Our New Relations with those Islands on Our Honey Market.—Fred L. Craycraft and W. W. Somerford.

Best Method of Comb-honey Production, with Latest Hive Improvements.—F. Danzenbaker.

Possibilities of Bee keeping.—Address by G. M. Doolittle.

Marketing Honey—Can and Ought We to Control Prices?—P. H. Elwood.

Bee-keeping, and the Source of the Honey Supply in and around Philadelphia.—W. E. Flower.

Foul Brood—Its Detection and Eradication.—N. E. France.

Our Pursuit as Viewed by an Amateur.—F. Hahman. Why Bee-keepers' Exchanges Fail.—C. A. Hatch. Bees or Honey—Which in Spring Management?—R. F. Holtermann.

Bee-keeping as a Profession.—W. Z. Hutchinson. How to Conduct Successfully a Bee-keepers' Exchange.—J. Webster Johnson.

The Fall Honey Crop of Philadelphia.—John L. Kugler.

Organization among Bee-keepers—If Desirable, Why, and How Best Accomplished.—Thomas G. Newman.

Best Method of Extracted-honey Production.—Frank Rauchfuss.

Address by A. I. Root.

Fads, Fancies, and Follies in the Apicultural World.—Hon. Eugene Secor.

The Products of the Bee—Pollen, Propolis, and Honey.—W. A. Selser.

Food Value of Honey—Its Adulteration and Analysis.—Hon. H. W. Wiley.

President's Address.—E. Whitcomb.

The "Western Passenger Association" will make a rate of one fare for the round trip plus \$2.00. This amount is "added to the rates charged by the other association through whose territory the person may travel." For further particulars apply to the secretary, Dr. A. B. Mason, Station B, Toledo, Ohio. While the season has been exceptionally poor, so far as honey is concerned, farm crops generally will be good; and as the rates are very low, owing to the G. A. R. encampment at Philadelphia, there ought to be a good attendance.

#### CORRESPONDENTS FOR BEE-PAPERS.

EDITOR YORK, of the *American Bee Journal*, says it seems that more than ever before the contents of the bee-papers of to-day are contributed by only a few writers, and that in this respect it is far different from what it was ten or fifteen years ago. This is quite true. Years ago it seemed to be the fashion, or rather, perhaps, the proper thing, to make every



bee-paper a sort of "experience meeting." While this is all right and eminently proper for a prayer-meeting, bee-papers are not run for the benefit of the *correspondents*, but for the benefit of the *subscribers* who take them simply for the information they can get out of them. Very many bee-keepers are brimful of practical thoughts and suggestions, but either are not able or are disinclined to commit them to writing; but there are only a few practical ones who can or will put their practical ideas into good readable English, so it has come to pass that comparatively few do most of the writing for the bee-journals; and it remains for the editor or editors to prevent those few from running their followers into ruts. The men who do write should be practical, up-to-date men; nay, more—they should be a little *ahead* of the times; and the editor should rub against those who don't write, by going to see them. In that way he can keep himself out of the ruts.

#### THE SEASON FOR 1899, AGAIN.

REPORTS have been slowly coming in; but taking them as a whole they do not appear to make out that the season will be any better than was given in our last. For some reason or other many of those who have secured a crop are holding it quietly in reserve, hoping they will possibly be able to "bear" up the market. If there are such, they are pursuing a "penny wise and pound foolish" policy, for now is just the time to get good prices. Later on, when fall fruits are on the market, there will be less demand for honey.

For the last few days we have kept a "tab" of the reports as they have been coming in; that is to say, the clerk who opens our mails, as soon as a letter is received has been making a memorandum of that portion of any letter that referred to the season in any way. The following are the memoranda by States and postoffices:

McIntosh Bluff, Ala. S. W. Very unfavorable honey season.  
 Safford, Ariz. S. E. No surplus.  
 Taylor, Ariz. E. Very poor year.  
 Bakersfield, Cal. S. W. Bees doing well.  
 Famo-o, Cal. S. W. Honey is coming in.  
 Pala, Cal. S. Filling hives very fast.  
 California. Near mountains, crop good.  
 Chatham, Can. Crop failure.  
 Grand Jc. Colo. W. Prospects not flattering.  
 Palm View, Fla. S. W. Bees doing well.  
 Bishop Hill, Ill. N. W. Honey total failure.  
 Hospital, Ill. N. E. Sweet clover booming.  
 Atwood, Ill. C. Bees doing finely.  
 Mead, Ind. C. Lots of honey.  
 Terre Haute, Ind. W. Small crop.  
 Knightstown, Ind. E. About half crop.  
 Elk, Iowa. Bees doing finely.  
 Charles City, Iowa. N. E. Small surplus yield.  
 Natick, Mass. N. E. No honey in this section.  
 Sanilac Center, Mich. E. Clover flow not very good.  
 Chesaning, Mich. C. Honey flow good.  
 Nirvana, Mich. W. Not much honey.  
 Bentheim, Mich. Not getting any surplus.  
 Benzonia, Mich. N. W. White clover poor; basswood good.  
 Holt, Mich. S. Honey crop a failure.  
 Filion, Mich. E. Bees doing well on clover.  
 Milan, Mich. S. E. No honey.  
 Montgomery, Mich. S. 200 lbs. top honey from four swarms.  
 Fruitport, Mich. W. Bees doing well.  
 Farwell, Mich. C. Surplus good.  
 Pease, Minn. E. White clover, basswood, and willow-herb yield splendidly.

Shackelford, Mo. C. Big crop of white clover honey.  
 Lebanon, Mo. S. W. Surplus good.  
 Arlington, Neb. E. Oceans of white clover, but bees in a starving condition.

Naples, N. Y. W. Almost no finished sections.  
 Groton, N. Y. S. Not a full super.  
 Eden, N. Y. W. No surplus.  
 Harpursville, N. Y. S. No white clover.  
 Pamela, N. Y. N. W. Poorest season known.  
 Cherry Valley, N. Y. C. Honey crop very light.  
 Wellsville, N. Y. S. W. Honey crop lightest in years.

Syracuse, N. Y. C. Prospect very poor.  
 De fiance, O. N. W. Honey failure.  
 Canal Fulton, O. N. E. Boxes about filled.  
 St. Stephens, Ohio. N. W. Honey crop light.  
 Hannibal, Ohio. S. E. No white clover.  
 Plain City, Ohio. C. Honey crop short.  
 Camp Chase, Ohio. C. Bees not doing well.  
 Mechanicsburg, Pa. S. Average per colony 40 lbs. comb honey.

New Lebanon, Pa. W. Season a failure.  
 Rockton, Pa. C. Not much honey.  
 New Milford, Pa. N. E. Honey crop very light.  
 Antesfort, Pa. N. E. Honey-flow great.  
 Coronaca, S. C. W. Utter failure.  
 Paris, Tenn. N. W. Honey drouth.  
 Hutto, Tex. C. Fine flow of honey.  
 Clarksville, Tex. N. E. Bees doing no good.  
 Hutto, Tex. C. Go d flow.  
 Mexia, Tex. C. Honey crop short.  
 Uvalde, Tex. S. W. Only 5 gal. from 200 swarms.  
 Catlin, Wash. S. W. Flowers plentiful, but no honey.  
 West Bend, Wis. S. E. Considerable basswood, but no clover.

Dilby, Wis. S. W. Very short.  
 Riverview, Wis. N. W. Honey season good.  
 Kickapoo, Wis. S. W. About half crop.  
 Kearneyville, W. Va. N. E. Honey crop light.  
 Banister, Va. Bees doing well.  
 Orwell, Vt. W. Bees doing nothing.  
 Monkton Ridge, Vt. W. Worst drouth ever known.  
 Vero, Fla. S. I have sold about one thousand dollars' worth of honey this season. H. T. GIFFORD.  
 Batavia, N. Y. C. My honey crop this season is about 3500 lbs. from 150 colonies, or about the same as last year. F. H. FARGO.  
 Nipamo, Cal. S. W. 188 colonies, 7100 lbs. honey. Extracted, May 2, 840 lbs.; May 17, 1580; May 31, 2000; June 17, 2700. C. G. McNEIL.  
 Dilly, Wis. S. W. Crop very short.

GUSTAVE GROSS.

The capital letters N. W., S. E., S. W., C., etc., indicate respectively northwest, southeast, southwest, and central portions of the different States. It will be noticed that in one section of any one State the season may be extra good, and in another portion an utter failure; and one will be surprised to read over the number of favorable reports in the whole list; and yet these are not one-fourth, out of the total.

As has been our custom every year, so it is this year, to allow every honey-producer who has honey for sale the free use of our advertising columns to the extent of five lines of space, one insertion. Those of you who do have honey should make haste to let it be known.

#### HOW TO CARRY SWARMS OF BEES ON A BICYCLE.

I have secured swarms of bees in sacks this time of year, and carried them on a bicycle. It sometimes happens that a farmer will say a swarm of bees is hanging on a limb a mile or so from our office. It would hardly pay to send a man with a horse and buggy; but with a bicycle and cheese-cloth sack I can very soon have those bees back home and in a hive. The sack should be carried by the upper end, where it is tied. Before the sack is tied, how-

ever, the bees should be shaken down to the bottom, and then the string should be secured four or five inches above the mass of bees. I usually carry the sack in one hand and guide the bicycle with the other.

A year or so ago there appeared an account in our columns of how a very enthusiastic youth, seeing a swarm of bees remote from his home, was particularly anxious to secure the bees and take them. What did he do but remove his pants, tie the legs of them together, shake the bees into them, and rush home? No mention of the fact is made of *how* he got home, or whether he was stung or not, or whether he met any one on the way; but the fact was clearly brought out that the bees were *hived*, and finally developed into a prosperous colony.

Taking this incident as a cue, I do not see why we can not use the cheese-cloth sack in the manner I have described. The body of the sack can be slipped clear up over the cluster of bees as they are hanging on the limb; and, if more convenient, the mouth of the sack can be tied around the limb so as to make it bee-tight; the limb can be cut, and our bees brought home in triumph.

#### LIGHT-WEIGHT SECTIONS, AGAIN.

In one of Rambler's Echoes, in this issue, he gives a clip at the practice of selling light-weight sections. If he were to move back to his old State, and go through the regions of Albany, Otsego, and Schoharie Counties, and then take a run through the cities of Albany and New York, I think he would come to the same conclusion that I have; namely, that in these localities the idea of a pound weight seems to be losing ground, and in some places it has been lost sight of altogether. The tendency has been toward a ten cent box—something that can be passed out to the customer at even change, without stopping to figure up ounces and fractions to get at the cost of the honey. Indeed,  $\frac{3}{4}$  and  $\frac{1}{2}$  pound sections, when well separated off, will run very evenly in weight, providing the combs are thin. Then these York Staters have a fashion of sorting and putting up honey in cases both as to grade and as to weight. A well-filled box will usually grade No. 1; a poorer grade and lighter weight will sell at 8 cents.

In some localities it may be that the thin comb works deception on the consumer, causing him to believe he is getting a pound, the usual weight, when really he is getting only 12 ounces. But the more money is sold by the piece (and the practice is growing everywhere), there will be less and less of deception; and the consumer will come to forget all about pound weights, and will simply ask how much that honey is per box or section—not how much it is by the pound.

Incidentally, it may be remarked that it is going to be difficult to raise the price in good years if we sell by the pound; and honey was priced and sold in 1897 at or below the cost of production. But if honey should be sold by the piece, then the old standard of measure (a pound of honey for 12 cents, we will say) is

lost sight of, and a new standard (a box for 10 cents) will be set up, which will practically mean honey at 15 cents per pound, as against honey at 12 cents. Is this dishonest? Not if honey sold by the piece is worth 15 cents per pound, and can not be produced at a profit for less.

WANTED, A \$100 QUEEN; MY IDEA OF WHAT A \$100 BREEDER OUGHT TO BE.

THAT does not mean that we would pay that amount of money to any one who *thinks* he has a queen worth \$100. There have been only a few such queens reared that I know of. One was our red-clover queen that produced bees that would not only gather honey from red clover, but actually store honey in sections when the other bees in the apiary were apparently doing nothing—simply robbing; and after the honey-flow they would keep their combs supplied with honey when the others were starving. The daughters of this queen made remarkable showings for the different bee-keepers over the country; and if we had the old queen herself again, \$100 would not buy her. Alley had, a year or so ago, what he called his \$100 queen. He sent us one of her daughters; and if we had her duplicate we would not sell her for \$50. Her bees were wonderful honey-gatherers, and her daughters were beautiful, uniformly and well marked. Now, perhaps some queen-breeder may think he has a queen that will fill the bill. Perhaps so; but we reserve the right to try her in our own apiary at least one honey-flow before we shall be willing to pay over the money, for we do not propose to take the judgment of somebody else—one who is interested in the sale of such a queen. And another thing: Before the queen is sent we should require her pedigree, the history of her bees as honey-gatherers, and the markings of her daughters. We want something whose bees will outstrip every thing else in the yard by *long odds*.

There are hundreds of individual queens whose bees go a *little ahead* of the rest of the yard. We have them; but we want something very much better. We are at present developing a stock that, next season, will be worth five and ten dollars a breeder; and if we can get our \$100 breeder we shall hold her best daughters at \$25. Here is the point: If a bee-keeper can, by paying from \$1.00 to \$1.50 for an untested queen that will bring him, in a good season, \$5 00 in clean cash, how much has he saved if he buys a 75 cent queen that will bring him in only \$2.00? And yet there is just that difference in the bees of particular queens sometimes.

If that quality can be maintained right along in the bees and daughters of a breeder, that breeder is worth *money*.

A Jersey, for instance, that can produce a pailful of milk at a milking is worth more than twice as much as some common "barn-yard affair" that will produce only half that amount of milk, and yet consume the same amount of fodder, and require the same amount of care. I don't know that we can get our ideal, but if some one can reach the mark there is \$100 that is waiting.





For what is a man profited if he shall gain the whole world and lose his own soul?—MATT. 16:26.

The Bible is full of warnings against selfishness; in fact, the ruling thought of the whole book seems to be that we shall cherish a kindly love toward those about us, and that we should try to cultivate such a spirit of unselfishness that we shall be glad to see others prosper—yes, glad, even though at times what is their gain may be our loss. We are exhorted to believe that the highest state of happiness comes in overcoming selfishness and greed, and being honest and fair toward all mankind. The text I have chosen seems to be a sort of summing-up of all these admonitions and exhortations. When Jesus, the Son of God, came here into this world and mingled with humanity, the sight of these low selfish feelings seemed to weigh him down with sorrow. The sight of human greed seemed to give him pain, and he plead with humanity to rise above such thoughts and feelings. He spoke parable after parable. He had just been rebuking poor Peter because Peter declared Jesus should be spared the ignominy of the cross. Peter spoke from the human point of view. He could not comprehend that it was God's will that his only Son should endure the cross. After rebuking Peter he turned to his disciples and said, "If any man will come after me, let him deny himself, and take up his cross;" and then he uttered the words of our text: "For what is a man profited if he shall gain the whole world and lose his own soul?"

Just while I am writing, in a neighboring city a great strike is going on. We might almost call it a civil war. The sad thing about it is that for some reason the police and other officers of the law do not succeed in restraining the outlaws. There seems to be a new and unheard-of state of affairs. Bricks and stones are thrown from a crowd, but the police can not make any arrest because they can not find out *who* threw the missiles. Innocent travelers on the street-cars—yes, women and children—have been damaged by these missiles; but the perpetrators of the deed go free because, as they say, no one knows who threw them. I once asked why crowds were allowed to collect; but I soon learned they dispersed when they saw a policeman approaching, but gathered again when they were sure no policeman was around; and then it transpires that the perplexing state of affairs largely comes about because the rioters have so many sympathizers. The common people, at least a large portion of them, seem to be in sympathy with those who are trampling our laws under foot, and almost *defying* law. We have been told from childhood that laws can not well be enforced unless public opinion and sympathy are back of the law. We have learned that in temperance work. Unless the majority of the people—perhaps we

may say of the voters—are friends of temperance, it is very hard to enforce the temperance laws. Does it follow, then, that the majority of our people, or at least a large portion of them, are in favor of mob law? I do not think so; but I do fear that a large proportion of our people are uneducated, especially in the large cities; and a still more serious thought is that perhaps large numbers know but little about the gospel of Jesus Christ. They have but very little comprehension of the grand truths revealed in the Scriptures. In spite of our schools and churches, in spite of the Endeavor Society and similar organizations, we are slipping down, a great part of us, into heathenism. Perhaps I might throw out another little suggestion right here: Whenever you read the names of those who have been arrested for disorderly conduct, you have perhaps noticed that the names are strange and foreign. They are not often Yankee names, and not often American. If you look over Dun and Bradstreet, and notice the names of the saloon-keepers in almost any town you will find these strange long names, oftentimes too difficult to pronounce; and, by the way, I hardly need tell you that the saloons are in close touch with the strikers almost everywhere. They may resent this, and deny it; but it can not well be disputed.

It seems a little strange that these troubles between labor and capital should connect themselves so persistently with the electric railways. Since the strike has commenced in Cleveland, other strikes have been started in other cities, and in the city of New York they have been tearing up the tracks, cutting the trolley-wires, placing obstructions in the way, and defying the police and officers of the law. What does it mean? Why should the great street-railway companies have more of this kind of trouble than anybody else? Is it not possible that it is the natural result of transgressing some one or more of God's holy laws? and is it not altogether *probable* that the employees and employers would feel better if they did not have to work Sunday just the same as any other day? No, that is not fair. They are called on to work *more* Sunday than on any other day; and all *sorts* of railways are making a stronger effort this year than ever before to increase the Sunday traffic. Our great dailies that profess to love law and order—yes, and righteousness too—*boast* of the enormous number of passengers that have been carried on a single Sunday, as if it were something to brag of, that we are opening up trade and traffic on new lines, and that, too, on the very day which we are commanded to remember and keep holy. We have just had proof that the cars *can* stop running on Sunday, for they have shut down on a great many week days in succession, and people got along and attended to business very well. They have been shutting down nights too, because the unruly mobs would not let them run after dark. Now, suppose some particular line should declare they were not going to do business on Sunday. Suppose they should say they wanted a rest themselves, and that they were going to give their employees a rest

too. Then suppose they each put their business in charge of men who are in *sympathy* with God's laws. Has anybody any doubt as to what the result would be? They would be respected by the great world at large, and they could feel some consistent respect for themselves. Somebody may urge that such multitudes as they have in the cities could not get to *church* without the aid of the street-cars. Then let us build churches where the people *are*, instead of carrying the people long miles to get to the churches. Let us start more missions and Endeavor Societies.

It is possible that the electric cars do sometimes carry a *few* church people; but who will dare to dispute me when I say they carry ever so many more to saloons and on Sunday excursions where drinks are sold? At Chipewewa Lake, five miles south of here, we have lately made several arrests, and fined and imprisoned men for selling liquor, keeping gambling-houses, etc. Well, just a few Sundays ago a great excursion came in on the cars, bringing their beer and other liquors; and as they expected our Medina officers would be likely to be on hand, we are told a delegation went along, composed of 75 men. This body of men was to keep watch, and see that no marshal or policeman should come on the grounds. In fact, they threatened violence if they showed themselves or undertook to make any arrests. How far removed is this from an *organized rebellion* against the instituted and approved laws of our land? Of course, no arrests were made, because in our little town there was not a sufficient number of officers, or at least a sufficient number could not be gathered together in time to arrest the law-breakers before they had packed up and got away.

Just now we ought, each and all, to be thanking God for the present prosperity. Everybody is at work; and, so far as I can learn, everybody has good pay. Even a great many people who were almost always out of work because nobody could afford to pay them average wages on account of incompetency, nowadays are having steady jobs. Sometimes I ask those who employ them how they get along; and the reply is, "Oh! I know they do not earn anywhere near what we pay them; but we can not get anybody else; and rather than suffer loss we employ them, thus choosing the lesser of two evils." A few years ago there was a constant lament because there was no chance of getting employment. People tramped from one end of the country to the other to find something to do; but now when there is lots to do, almost *everybody* has a job, and it seems as if the proper thing to do is to unite in thanking God for plenty — yes, for the abundance that seems within the reach of almost every man, woman, and child. Instead of these strikes and quarrels we ought to have a grand thanksgiving day. I do not mean a day for a great lot of us to get drunk, but a day devoted to sober, quiet thanksgiving and praise to God for all these mercies.

In regard to wages, great corporations and large factories are advancing pay when their workmen do not ask it and do not expect it.

A great many establishments are giving their employees "happy surprises" in the way of unexpected advance in wages. Why, these things should tend to *diminish* strikes; or if we have strikes they should be easily settled. We now have State boards of arbitration, and they are composed of good men, and they have been doing their utmost to do away with the strike in Cleveland; but their efforts seem to be almost unavailing. A few weeks back I suggested that certain people seemed to be, in these modern times, possessed of the Devil. Well, just now it looks as if not only individual persons but *whole crowds* were possessed of some spirit of evil. I have just glanced at a Cleveland daily. It stated that the cars were run without much molestation until they passed a factory where a large number of girls were employed. These girls threw bricks and other missiles from the windows. A car was smashed, and human life was endangered. The police visited every floor, and made unavailing attempts to discover who threw the missiles. Now, the most alarming thing in the whole matter, to me, comes in right here: While the policemen were going through the place these girls and women hissed at them and made derisive remarks. I once heard our pastor tell us that, if we could not respect the man who held office, we should respect the office he holds. Now, I do not know just how the law reads; but it seems to me that every policeman and marshal should be empowered to arrest every person who shall treat him with this kind of disrespect — not disrespect to the man who holds the office, mind you, but disrespect for the office itself. These girls or women seemed to say by their actions that policemen, instead of being a safeguard to humanity, are *foes*. Their actions were in the line of anarchy; and it is my impression that, sooner or later, we shall have to take in charge every person who expresses his disgust and want of respect for law, much as when we arrest and punish a man for resisting an officer.

There seems to be a pretty strong element that indicates by its actions it would like to trample law under foot. After these people have got law and all its officers under foot, they have not told us what they would do, but we can guess. Dynamite has been used in Cleveland to destroy property, and also in Brooklyn, N. Y., and other large cities. All of these troubles, if I am correct, come from differences in regard to who shall have the money that is earned, or perhaps in regard to the manner of dividing the earnings of our street railways. When things go on peaceably everybody is rejoicing over this new arrangement for transportation that carries people several miles for only a nickel. Farmers who have horses with nothing to do have told me they could ride to town cheaper on the cars than to hitch up a horse, even if he needed exercise. We have all felt happy to think we could travel so comfortably and so cheaply; and as improvements are being constantly made, these great companies are every year carrying us further and *further* for only a nickel. One great city has already commenc-



ed carrying people, and giving transfers, for three cents instead of five; and yet, instead of this thanksgiving that I have been talking about, we are having fierce wars, and blood is being shed, and the greatest part of this war and bloodshed comes over these very electric cars.

It is not in the great cities alone, however, that Bible teachings are forgotten. This greed for gain, and sacrificing reputation and every thing else for gain, seems to be everywhere. Let me give you one illustration: The postmaster in a town of moderate size received quite a good salary; but instead of doing the work himself he was permitted to have two young women for assistants. Although he had quite a comfortable salary these young women who did the work had quite a small one. As the business of the office increased the girls asked him if he did not think they ought to have a little better pay. He said he agreed with them, and promised to write to Washington and use his influence in getting a better appropriation for them. This he did, but he told them that the increase was not granted. But this was an untruth. The raise in salary *was* granted, but he put the amount in his own pocket, simply giving them their old pay. They had such perfect confidence in their employer that they signed receipts for their pay on a blank, leaving him to fill it out. This thing went on for two years, when one of the young ladies wrote to Washington herself, and discovered the true state of affairs. Now, this man, not content with having a big salary when others did the work for him, at small pay too, not content with this injustice, for that is what I call it, he *robbed* these poor hard-working *underpaid* young women, and put the stealings into his own pocket that he might buy more cigars, and possibly drink more beer (or do something still *worse*) with the money. Was this man possessed of a *devil* too? I have never learned that the Devil has any conscience at all, and I presume he has none; but if he *has* he certainly would have been *ashamed* of himself and of his meanness, to be found engaged in such a dastardly work as this. Oh how *foolish* it is to try to get a little more for yourself by cheating somebody else! I fear it is indeed true that, in the United States of America, where young women are better treated (so it is said) than in any other country on the face of the earth, I fear it is indeed true, as I said, that here in our own native land, women are many times allowed to suffer just because they are women. If one man should come before some other man, and demand fairness and justice, he would get it simply because his opponent would know he would not submit to being put off or cheated; but if a *woman* should come and make the same protest, and demand her rights, this same man might, and I think does sometimes, say to himself, "Oh! she is only a woman. *She* will not do any thing;" or, perhaps, "She *can't* do any thing, and so I will not bother myself about each other."

Now, when I tell about the sins of humanity I try to look into my own heart and see if I am ever guilty in a similar way. Several

times of late, conscience has given me quite a lash right along on this line. Almost every day of my life I am conscious of something or other that has been neglected that really ought to be seen to. I excuse myself somewhat by saying I am old and partly worn out, and I can not fight everybody's battles as I used to do when younger. Well, perhaps I am somewhat excusable along this line; but where conscience lashed me is right here: When I read my letters, as they come in the mails, I never look to see who the writer is till I get clear to the end. Well, oftentimes of late I am urged to take in hand something that needs to be done. A letter is so eloquent, and the matter is stated so fairly, that I say to myself, "Well, now, I will drop every thing else, and get at this thing right straight, and do what I can to have it righted." But perhaps when I come to read the signature I see it is *Mrs.* somebody instead of *Mr.* Now, while I ask God to forgive me I want you too, dear friends, to forgive me when I confess that, when I see it is "only a woman," I sometimes draw a sort of breath of relief, and conclude I will not do any thing about it after all. Now, what is the reason I do not move with the same vehemence and alacrity when a woman pleads that I do when it is a man? I am afraid, dear friends, to be real honest, it is because I sometimes take it for granted she will not do much about it anyhow, if no reply is made and the matter is dropped. Let me see. What text was it I gave you a talk on quite recently? As sure as you live, it reads, "We that are strong ought to bear the infirmities of the weak, and not to please ourselves." A true gentleman ought to exert himself *more* when a petition comes from a woman, or, if you choose, from a child, than when it comes from a man of wealth and influence. I believe it is a pretty good plan to read the letter over carefully before you look for the signature; then decide what you will do, entirely on the *merits* of the case presented, and not because of the one who presents it. How many of us are there who do that way? And, again, how many are there who will promise right here now to put away all bias or prejudice, and do right before God, and not gauge your alacrity according to the standing or influence or person who asks you to do him a favor?

Some little time ago there was a question up about rent. A friend of mine was to have his property put out on the sidewalk in a very few hours if his rent was not paid. I questioned about it, and was told my friend did not propose to pay the rent, because the renter had acted so *mean* about it. I replied:

"Why, don't you pay a just debt, even if a man *does* act mean? I would pay everybody every cent that is honestly his due, without any *regard* to how he has acted. In fact, I do not know but I should be a little readier to pay a *mean* man, for then we could wind the matter up and have nothing further to do with it."

After an arrangement had been made to pay up the month's rent I remarked, "But, look here. You have occupied the premises

two weeks since the rent was due. How about the rent for these two weeks?"

The answer came something like this:

"Oh! the premises have been occupied these two weeks because he was making such a fuss about the matter. That is all right. He will not make any fuss about the two weeks. He will be glad enough to get the pay for the month that is overdue."

When I was told this was the customary way of doing things of that kind I remonstrated again; and I have been told that the landlord or landlady, I do not know just which it was, was a good deal astonished because I arranged the rent should *all* be paid, not only for the month that they quarreled about, but also for the two weeks they had said nothing about. Now, my friends, this thing is all wrong. I know something of the many difficulties there are, and the quarrels that come up, in consequence of *renting* property. People who rent all their lives are, I suppose, poor people, and no wonder. The best way to get rich, and avoid paying *any* rent, is to pay every cent you owe to anybody, no matter if he *is* mean. If there is a difference of a few cents, pay it. Better be wronged, by far, than to try to go to sleep at night with the conviction resting on your conscience that *you* have wronged somebody. I suppose there are people who gain a few cents every day by shirking responsibilities. There may be some who manage to cheat somebody else out of a dollar or two every day of their lives; but do people get *rich* that way? Why, one might almost think they would, to take only one view of the matter. The old adage is, "A penny saved is a penny earned;" but it does not say that a penny saved *dishonestly* is a penny earned. It is an easy thing to get a reputation for being small and mean and dishonest, and the man who gets such a reputation suffers. He suffers in a thousand ways. He loses the confidence, friendship, and assistance of his fellow-men. He loses all that is bright and good in this world. He loses happiness; and finally our text tells us he *loses his own soul*; and who will ever be able to tell *all* that is implied and comprehended in these words that our Savior himself once used?

#### LAGER BEER BY THE MILE.

We clip the following from the advertisement of a well-known American brewery:

When 219 carloads of our beer were shipped to Manilla, the world wondered. What industry was this that shipped its product by a mile and a half of trains to that remote spot?

Yes, indeed, we may well repeat, "What industry is this?" In former times our people had some experience in teaching the American Indians to respect our United States laws. But they very soon made it a heavy penalty for any white man to sell whisky to an Indian. The whole world—or at least a greater part of it—is discussing the right and wisdom of the United States in undertaking to reduce the Filipinos to subjection to our laws. Now, then, what kind of civilization and Christianity is this, to send in intox-

icating liquors, not only by the carload, but by the *miles* of carloads, at the very time when we are fighting the savages in a foreign land, and their own land too, as it *seems* to them? I am not disputing the right of the United States to subdue the Filipinos; but I *am* disputing the right of the United States to subdue any nation or any people where our people use whisky and firearms at one and the same time.



#### GROWING STRAWBERRIES IN A BARREL.

As there has been considerable inquiry in regard to this matter, Mr. J. P. Ohmer, of Dayton, Ohio, the originator of the plan, has sent out a little circular describing the process. Here it is:

Take any iron-bound barrel except those which have been used for pickles, sauerkraut, or vinegar; take all hoops off but four; bore four holes in the bottom. Then space holes around the barrel so that twelve plants will go around it. Five rows high will make sixty plants to the barrel (the fifth row can be placed five inches from top of barrel). Bore two holes, one above the other, and cut out the wood between the two holes. By using a bit  $1\frac{1}{2}$  inches, you will have a hole  $1\frac{1}{2}$  by 3 inches. When you plant, put the plants as near the top of the holes as possible, to allow some for settling. Use c-ay ground, well mixed with rotted manure. Put two inches of gravel in the bottom of the barrels to keep the drain-holes from getting stopped up. Put in the dirt till about three inches above the first row of holes. Be careful to have dirt not too wet.

The first row of holes must be 8 inches from the bottom of the barrel. Get in and tramp the dirt solid, then loosen the dirt with a trowel where the plants go; then plant that row. Spread the roots out well, then put dirt about half way up to the next row of holes; then take a common drain-tile, 12 inches long by 3 or 4 inches in diameter; put it in the center of the barrel, and fill the tile with coarse sand; then fill up the barrel with dirt a little above the next row of holes; tramp again. Be careful not to move the tile. Cover up the tile, so as not to get any dirt in it. After planting the second row, lift the tile. See that the sand settles, then fill the tile with sand again, then put in dirt above the next row of holes; tramp again, and plant that row, and repeat the operation until the five rows are planted. *But don't fail to tramp.*

After you are done planting, the tile remains in the barrel; have it empty, so as to take the water. In watering you water in the tile for the lower rows; on top of the barrel for the two top rows. It would be impossible to water the lower plants without the tile and the core of sand. You can water the plants too much. Fill the tile once per day, and put about two quarts of water on the outside of tile. After cold weather sets in, we quit watering. They want no winter protection. Set the barrel on brick, to keep it off the ground. If any should die in the summer, you can re-plant them by taking a runner and putting the young plant in the hole, and stick it fast with two little sticks.

Use the largest fruiting variety that does well in your local ty, and perfect blooming sort, if possible. Planted early in the spring, you may expect a fair crop the same season. Paint barrel any light color, for contrast.

After hearing Mr. Ohmer describe the barrel at the horticultural meeting, he added that no one had better undertake it unless he could attend carefully to all the details, for a little neglect in watering will ruin the whole thing very quickly. Such a barrel is too heavy to carry indoors. It must be wintered right in



the open air. Somebody asked him if it needed turning around so the sun could get at all sides. Mr. O. told us if we would get up early enough in the morning we might see that the sun goes clear around the barrel, from morning till night, and actually laps over quite a piece. No turning around is necessary. You can get the finest strawberries in the world by the barrel plan, and more bushels to the acre, that is, if you had an acre covered with the strawberry-barrels, than you could possibly get by any other plan.

#### OUR NEWER STRAWBERRIES.

Although I have again and again declared I did not want our list of strawberries made any larger unless for some *exceedingly* good reason, I find at least some of the new ones I have seen in bearing for the first time that promise very favorably. The first is the Ridgeway; and if it will grow on my own grounds as I saw it on Wilbur Fenn's, at Tallmadge, O., I shall certainly give it a place. The plant is a remarkably strong, robust grower. The berries ripen a little late, but are remarkable for their size, beauty of shape, and for the fact that they stand away up above the foliage and out of the dirt. Every berry seems to be as perfect, almost, as if it were turned in a lathe. In this respect it resembles the old Cumberland Triumph. Now, this is the way it behaves on cousin Fenn's grounds. Most of us are beginning to learn that the berry that does well in one locality may not in another, even near by.

The second one I wish to call attention to is the Empress, just brought out by Matthew Crawford. I visited his place when most of the strawberries were gone, and the dry weather was fast using up the late ones. The Empress, however, had a magnificent growth of foliage, and green berries and ripe ones were both in great abundance. When I suggested it was a late berry, friend Crawford said it commenced ripening quite early, on the contrary. I know the plant is a tremendously strong and robust grower, because we have it on our own grounds. Now, if it bears everywhere else as it does at Matthew Crawford's place, it is certainly remarkable, because it *holds out* "head and shoulders" above any thing else.

Last, but not least, I wish to call attention to the Hunn. When I asked friend Crawford for the latest berry known, he took me off to a distant part of the field and showed me the patch of Hunns, all green fruit. There was hardly a berry ripe enough to get the flavor, and yet almost every thing else except the Empress was perfectly done for the season. The Hunn is a peculiar-looking berry, but it did not seem to be a very robust grower, perhaps because the ground was too poor where it happened to be located. I should say it is a *good deal* later than the Gandy and Parker Earle in time of ripening. We shall give it a good test next year.

#### CALLING THINGS HUMBUGS.

I have been trying for five or six years to get a taste of the Japanese wineberry, and I

think it has been generally voted a humbug, mainly because it does not stand our winters. Well, a few days ago I had another one of my happy surprises in finding some clusters of wineberries, about as handsome as any thing I ever saw in the small-fruit line; and when I came to taste them, the delicious sprightly acid, with a pronounced raspberry flavor, was *another* one of my happy surprises. A dozen plants came through the severe winter—in fact, one of the most severe winters we ever had—with scarcely an injury. The beauty of the clusters of fruit, together with their delicious, unique flavor, made me feel as though the plant was worth all the time I have fussed with it.

While we are on this subject, here is at least one friend who takes the part of the much-condemned Gault raspberry as follows:

What is the Gault everbearing raspberry doing? I never hear about it any more. I have some of them, and I think they are all right.

Oakley, Ill., July 11.

FRANK BAKER.

#### THE PORTER APPLE—ITS EARLY FRUITING.

I think I have before mentioned the Porter apple-tree that bore two pretty good-sized apples of excellent quality in less than a year after it was put out. Well, the second year—that is, during the present summer—it had eleven very fair apples; and I should call it, judging from these specimens, the best early apple I ever tasted. Can anybody tell me why the Porter apple has not been made more of? Is it a trait of that particular variety to bear so early? Why, the tree that had the eleven apples on is no part of it higher than I can reach. This seems a most desirable trait in an apple-tree, because in an orchard of over 100 trees we did not get any apples worth mentioning until the orchard was almost or quite ten years old. The Porter is a tart apple, similar to the Early Harvest. The shape is a little oblong, and the perfume of the ripe apples is exquisite, even when you are several feet away from the tree. The skin is very thin; color, a beautiful whitish yellow when ripe, and so tender it almost melts in one's mouth. Now, that is *my* description of it. But I am told by nurserymen that the Porter is comparatively well known, and yet nobody has ever yet made any particular fuss about it.

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#### GOOD ROADS.

Medina is one of the muddy counties. In the spring it is no unusual sight to see wagons in the mud up to the hub; and sometimes it requires a good team to pull an empty wagon just a few miles. Last winter, and, in fact, several months before winter, quite a stir was made for better roads. A mass meeting was held; and at this meeting, of course there were certain ones who vehemently objected to putting any more burdens on the overburdened tax-payers—especially the poor farmers. Finally, when there seemed to be a good chance for a regular row about the new roads, somebody started out to see how many voluntary subscriptions he could get for work to fix one of the worst pieces of road in the county

ready for a broken-stone covering. To the great surprise of many, the farmers turned out in such crowds that a big enthusiasm was started. Business men, and people from miles away, who did not wish to be outdone, furnished men, money, and horses. The "Burnham Flats" were finished in good style before we knew it, and it did not cost the county a cent. We are now doing the same thing past our own home. Six teams and a large crowd of men are at work to-day, July 26. Nobody can grumble or find fault, because each one does what he pleases, of his own free will.\* May the Lord be praised that *good* things are contagious as well as *evil* things! Enthusiasm is spreading in every direction, and stone roads will soon be started out of our town in four different directions; and it looks as if there were going to be strife to see which road will be carried the most miles out into the country. Now, if the work that is being done to-day had been done forty years ago it would have saved in horse flesh, wear and tear of vehicles, etc., who can compute *how* many times the cost of the whole improvement? Farmers and everybody else have taken *days* to move their stuff when *hours* would have accomplished it with the new roads; and last, but not least, our boys and girls can have their wheelriders every month in the year, whether it rains or shines. But a few months ago our people arose in their might and formed a law-and-order committee to stop the illegal sale of strong drink in this town of Medina; and is it any thing wonderful that the crusade against intemperance was almost immediately followed by a like crusade for *good roads*?

I have thought best to give the above in order that the people in other localities where GLEANINGS goes may go to work in like manner to establish good roads; and before I drop the matter, I wish to offer two more suggestions. The first one belongs to Mrs. Root; but she would "scold" if she knew I was going to give her the credit here in print. It is simply this: When you start out with the men and teams to do heavy work during the hot months of July and August, provide plenty of good drinking water for the *horses* as well as for the men. I have just been out to tell the teamsters that they drive, say, a quarter of a mile to our watering-trough, and water the horses about three in the afternoon. They all agreed that it would be an excellent idea, but they said it would take a little time to do it. Mrs. Root is always thinking about the horses in such a time as this, and I presume there are other women who feel just as she does about it—at least I hope so.

\*The only objection to this voluntary work in the way of doing business is that there are always some who are abundantly able, but who will not do any thing if they can avoid it. Such people must be brought into line by personal exhortation. Let the neighbors, a lot of them, go to these objecting neighbors, and in a neighborly sort of way present the importance of the undertaking. If you do it in the right spirit you will get something, at least, from everybody along the route or in the neighborhood. I have just been doing that sort of work, and I have succeeded beyond my expectations. We have become better acquainted with each other, and we are as a neighborhood more united than we have been for years past.

The second thing is, to be sure your scrapers, plows, doubletrees, clevises, chains, and every thing, are all on hand in good order before you start in with half a dozen or more teams. A new scraper was just unloaded from the cars. When we came to put it together we found the holes were a little too small for two of the most important bolts. Several teams and men had to stand still while somebody went away for a large round file. If the manufacturer had been on hand while the men fussed to get those bolts in place, I *hope* he would have formed a mighty resolution never to send such a machine to farmers again without knowing that the bolts would all *go* where they belong. Half a dozen teams will do a tremendous amount of work in a day, provided somebody takes the responsibility of seeing that the tools are all in perfect order, so there can be no hitch and a consequent "sitting in the shade" while waiting for things to *be* fixed.

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### Special Notices by A. I. Root.

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#### THE L. A. W. MEET IN BOSTON.

No preventing providence, I expect to spend a week or ten days in Boston and vicinity somewhere between the 15th and 25th of the present month. If any of the friends would care to see me I might make them a brief visit, if other engagements will permit. I shall probably visit our good friend Manum, of Bristol, Vt.

#### STRAWBERRY-PLANTS.

We have a very nice stock of potted plants ready to ship at 3 cts. each, by express; 4 cts. each by mail. Nick Ohmer will be double above prices. Please remember our potted plants are sent either by mail or express with jadoo fiber on the roots. Layer plants will probably be ready Aug. 15. It depends considerably on the amount of rain we have, as to whether we can furnish layer plants at the above date at usual layer prices as per our seed catalog.

#### ONION-SETS.

We are now harvesting our winter onion-sets, and also our Acorn-top onion-sets. Price of the winter, 10 cts. per quart; 50 cts. per peck; \$1.50 per bushel. Price of the Acorn-top onion-sets, just double the above prices. If wanted by mail, add 10 cts. per quart for postage and packing. There has been some discussion about large sets or small ones. If you get small sets, of course there will be ever so many more in a bushel, and they are less liable to run up to seed. Some of our customers, however, prefer the large sets; and we have some winter onion-sets grown on very rich ground that are almost as large as a small hen's egg. You can have either kind at the same prices. We are short on American Pearl onion-sets to be planted out in September; but we are trying to make arrangements to purchase some of the Philadelphia growers. Prices will be given later. We have a limited supply of Prizetaker onion-sets. Prices will be the same as for the Acorn-top.

#### SOWING BUCKWHEAT AND CRIMSON CLOVER IN AUGUST.

The best crop I ever grew was sown August 15. Of course, when sown as late as this there is danger of getting caught by frost; but as buckwheat is a cool-weather plant, it does very much better if sown so as to just escape the frost. Another thing, if you do not get a crop of ripened seed you will have a lot of bloom for the bees, and it is worth all it costs to turn under to enrich the land. If frost kills it, plow under at once and sow it to rye, and plow under the rye in the spring, and put in corn or potatoes or whatever you choose. We still have a surplus of nice buckwheat for seed at \$2.00 for a two-bushel bag, bag included. Put in crimson clover with your buckwheat; and when the frost kills the buckwheat the clover will be nicely mulched to enable it to stand the winter; and if put in



as early as this in any kind of decent ground it ought to winter over with you as well as it does winter after winter here in Medina. The finest stand of potatoes I ever saw in my life is where we turned under crimson clover while in full bloom in May. Please notice our prices for crimson clover (home-grown) are much lower than prices made by any of the seedsmen—only \$2.50 per bushel. This price lasts, however, only so long as our supply holds out.

#### SWEET-CLOVER SEED WANTED,

We can use either the hulled or unhulled. Mail us sample, tell us how much you have, and we will name prices.



#### ADVANCING PRICES.

Owing to the increased cost of materials the price of very many goods listed in our catalog will have to be advanced more or less. We expect soon to begin publishing in this department the advance prices for next season, and these advance prices will take effect when published unless otherwise specified.

Window-screen wire cloth is advanced  $\frac{1}{2}$  ct. a foot, making cut prices 2 cts. a foot, and full rolls  $1\frac{3}{4}$  cts. per sq foot. Standard wire nails advance 2 cts. per lb.; 15 cts. per 10 lbs.; \$1.50 per keg. Fine flat-head nails, advance about 20 per cent. Double-pointed tacks, advance 5 cts. a lb. Record lever-seal pails, advance 2 cts. each over catalog price. Square cans, advance 1 ct. per gallon, which makes boxes of two 5 gal. cans \$7.00 for 10 instead of \$6.00. Still further advances will likely occur in these and other articles.

## Queens, Queens, Queens.

We are headquarters for Gray Carniolan and Golden Italian queens. Untested queens, 65c; tested, \$1.25; select tested, \$2.25. Satisfaction guaranteed. Never saw foul brood. For prices on large orders, nuclei, full colonies, and imported queens, write for free descriptive price list.

#### Testimonial.

MEDINA, OHIO, May 29, 1899.

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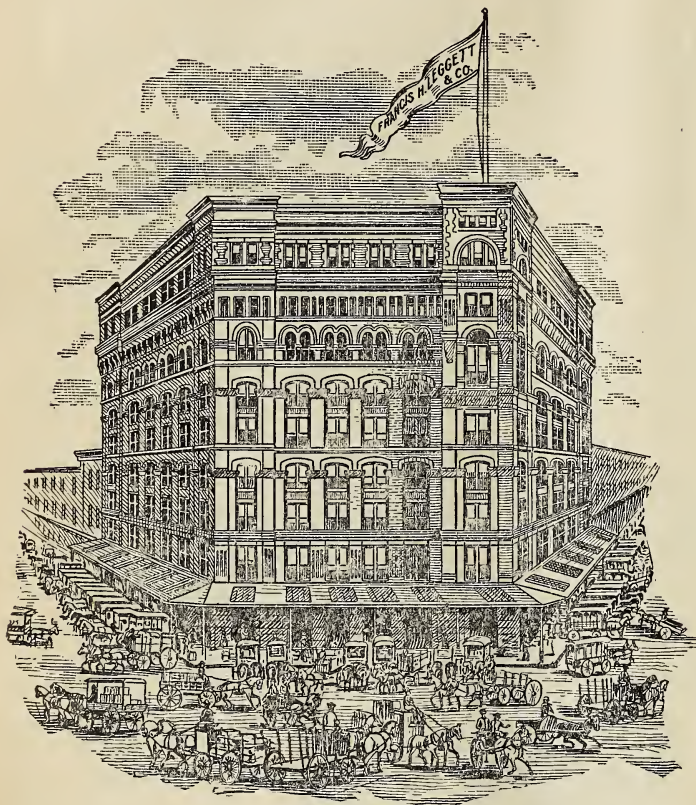
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in which we handle honey by the crate, barrel or carload. We purchase from the producer only, for our own account for cash, or receive honey upon consignment, under limitations of selling prices, with liberal cash advances when requested. Quotations furnished upon application, for any variety or quantity of honey, either buying or selling. We are represented in every state of the union, as well as in many European states. Over one hundred of our men are constantly travelling amongst the retailers and jobbers of groceries in the United States. In this way we find an outlet for all grades of honey. We would say to shippers that the market at present is in good shape for new **EXTRACTED** or **COMB HONEY**. We can also market your **MAPLE SYRUP** and **MAPLE SUGAR**, our dealings in these are very heavy. We extend thanks to our shippers for favors of the past, and hope for a continuance of their shipments.